OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-F-0002

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

U.S.ARMY RSCH INST OF ENVIOR MED KANSAS STREET, BLDG 42

**ROOM 361 B** NATICK, MA 01760

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROI		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following 1.) actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143). NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 10-DEC-2013

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-F-0010

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

NATIONAL MARINE FISHERIES SERVICE AQUARIUM

166 WATER STREET

WOODS HOLE, MA 02543

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	s				

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following 1.) actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED

SIGNATURE OF C.E.O. OR I.O.

(b)(6), (b)(7)(c)

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print) 03-FEB-2014

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0003

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

DANA-FARBER CANCER INSTITUTE 450 BROOKLINE AVENUE

BOSTON, MA 02215

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

EMORY UNIVERSITY

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENTS					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following 1.) actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0004

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

PINE ACRES RABBITRY/FARM

299 E. MAIN STREET

NORTON, MA 02766

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

A.	В.	C.	D. Number of animals upon	E. Number of animals upon which teaching.	F.
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	58	60	0	0	60
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	812	510	0	0	510
9. Non-human Primates	0	0	0	0	0
10. Sheep	8	2	0	0	2
11. Pigs	351	180	0	0	180
12. Other Farm Animals					
13. Other Animals					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 04-NOV-2015

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0010

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

THE SCHEPENS EYE RESEARCH INSTITUTE 20 STANIFORD STREET

BOSTON, MA 02114

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROI	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	3	30	68	0	98
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					

#### Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following 1.) actual research, teaching, testing, surgery, or experimentation were followed by this research facility.

- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 12-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0013

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

GENE SYS RESEARCH INSTITUTE 736 CAMBRIDGE STREET, C B R 406

BOSTON, MA 02135

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	29	0	29
12. Other Farm Animals					
13. Other Animals					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 09-DEC-2013

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0014

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

GENERAL HOSPITAL CORPORATION RES MGMT 149 13TH ST # 5249

CHARLESTOWN, MA 02129

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

ACCURO FARMS INC

WERDET BEANING ALK THE	ENTER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	26	0	26
7. Hamsters	0	0	6	0	6
8. Rabbits	1	93	126	0	219
9. Non-human Primates	0	24	233	0	257
10. Sheep	0	0	74	0	74
11. Pigs	0	696	731	0	1427
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 28-FEB-2014

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0016

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as

L C F FOUNDATION INC

registered with USDA, include ZIP Code)

41 MALL ROAD

BURLINGTON, MA 01805

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROI	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	5	0	0	5
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	3	0	3
12. Other Farm Animals	0	0	4	0	4
13. Other Animals					
ASSURANCE STATEMENT	9				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 29-NOV-2013

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0017

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

BOSTON UNIVERSITY 5 CUMMINGTON MALL

BOSTON, MA 02115

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBE OF ANIMALS (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	4	0	4
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	28	0	28
9. Non-human Primates	0	0	55	0	55
10. Sheep	0	0	0	0	0
11. Pigs	0	0	5	0	5
12. Other Farm Animals					
13. Other Animals	0	355	288	0	643
ASSURANCE STATEMENT					

#### ASSURANCE STATEMENTS

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

19-AUG-2015

**OMB APPROVED** 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0017

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

BOSTON UNIVERSITY

5 CUMMINGTON MALL

BOSTON, MA 02115

REPORT OF ANIMALS USE			(Attach additional sheets if necess		
A. Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
BATS	0	269	0	0	269
FERRETS	0	44	0	0	44
GERBILS	0	42	15	0	57
CHINCHILLAS	0	0	273	0	273

### ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.)

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED

19-AUG-2015

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0018

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

MASSACHUSETTS INSTITUTE OF TECHNOLOGY 77 MASSACHUSETTS AVENUE, 3-234

CAMBRIDGE, MA 02139

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

A.	В.	C.	D. Number of animals upon	E. Number of animals upon which teaching.	F.
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	13	4	51	0	55
7. Hamsters	0	0	22	0	22
8. Rabbits	15	4	44	0	48
9. Non-human Primates	14	24	69	0	93
10. Sheep	0	0	0	0	0
11. Pigs	0	5	22	0	27
12. Other Farm Animals					
13. Other Animals	0	32	62	0	94

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 27-JAN-2014

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0018

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

77 MASSACHUSETTS AVENUE, 3-234

CAMBRIDGE, MA 02139

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)					
A. Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
CHINCHILLAS	0	2	4	0	6
GERBILS	0	30	58	0	88
ASSURANCE STATEMENT	S		1		

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

	CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL (Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))  I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)		DATE SIGNED 27-JAN-2014

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0019

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

HARVARD MEDICAL SCHOOL HARVARD CENTER FOR COMPARATIVE MEDICINE 665 HUNTINGTON AVE

BOSTON, MA 02115

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)					
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	18	106	0	124
9. Non-human Primates	0	1417	931	0	2348
10. Sheep	0	0	0	0	0
11. Pigs	0	6	15	0	21
12. Other Farm Animals					
13. Other Animals	0	183	310	0	493
ASSURANCE STATEMENT					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 02-MAY-2014

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0019

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

HARVARD MEDICAL SCHOOL

HARVARD CENTER FOR COMPARATIVE MEDICINE

665 HUNTINGTON AVE

BOSTON, MA 02115

			·		
A. Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	Attach additional sheets if necess  D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	,	F.  TOTAL NUMBER  OF ANIMALS  (Cols. C + D + E
GERBILS	0	137	0	0	137
FERRETS	0	46	310	0	356

### ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

	CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL (Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))  I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)		DATE SIGNED 02-MAY-2014

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0020

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

CHILDRENS HOSPITAL BOSTON

SI LH 426

300 LONGWOOD AVE

BOSTON, MA 02115

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	6	10	41	0	51
9. Non-human Primates	0	0	0	0	0
10. Sheep	3	0	20	0	20
11. Pigs	0	0	160	0	160
12. Other Farm Animals					
13. Other Animals					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 21-NOV-2013

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0021

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

NORTHEASTERN UNIVERSITY 12 MUGAR LIFE SCIENCES BLDG 360 HUNTINGTON AVE BOSTON, MA 02115

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

Α.	В.	C.	D. Number of animals upon	E. Number of animals upon which teaching,	F.
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	608	360	0	968
8. Rabbits	0	0	2	0	2
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	0	395	37	0	432

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following 1.) actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

12-DEC-2013

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

BOSTON, MA 02115

14-R-0021

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

NORTHEASTERN UNIVERSITY 12 MUGAR LIFE SCIENCES BLDG 360 HUNTINGTON AVE

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)

A. Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
VOLES	0	395	37	0	432

### ASSURANCE STATEMENTS

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY I	HEADQUARTER	RS RESEARCH F	ACILITY OFFI	CIAL
(Chief Executive Officer	(C.E.O.) or Legall	y Responsible Inst	itutional Officia	(I.O.)

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED

12-DEC-2013

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0022

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

MASSACHUSETTS EYE AND EAR INFIRMARY 243 CHARLES STREET

BOSTON, MA 02114

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER  OF ANIMALS  (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	1	0	3	0	3
6. Guinea Pigs	16	0	144	7	151
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	47	30	77
9. Non-human Primates	1	0	4	5	9
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	3	0	19	0	19

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143). NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 30-JAN-2014

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0022

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

MASSACHUSETTS EYE AND EAR INFIRMARY 243 CHARLES STREET

BOSTON, MA 02114

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)					
A. Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
CHINCHILLAS	3	0	19	0	19

#### ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

	CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL (Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))  I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)		30-JAN-2014

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

## UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0025

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

HOLYOKE COMMUNITY COLLEGE

303 HOMESTEAD AVE VET & ANIMAL SCIENCE

HOLYOKE, MA 01040

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

Α.	В.	C.	D. Number of animals upon	E. Number of animals upon which teaching,	F.
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBEF OF ANIMALS (Cols. C + D + E
4. Dogs	0	2	0	0	2
5. Cats	0	4	0	0	4
6. Guinea Pigs	0	3	0	0	3
7. Hamsters	0	2	0	0	2
8. Rabbits	0	3	0	0	3
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 26-NOV-2013

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0027

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

**CELLDEX THERAPEUTICS** 119 FOURTH AVENUE

NEEDHAM, MA 02494

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	10	0	0	10
7. Hamsters	0	0	0	0	0
8. Rabbits	0	11	0	0	11
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 10-DEC-2013

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0029

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

NEW ENGLAND AQUARIUM

CENTRAL WHARF

BOSTON, MA 02110

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	15	0	0	0	0
ASSURANCE STATEMENT	S				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 12-DEC-2013

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

12-DEC-20

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

## CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0029

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

NEW ENGLAND AQUARIUM

CENTRAL WHARF

BOSTON, MA 02110

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)					
A. Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
COMMON HARBOR SEA	ALS 6	0	0	0	0
NORTHERN FUR SEALS	5 7	0	0	0	0
CALIFORNIA SEA LION	3 2	0	0	0	0
ASSURANCE STATEMENTS					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

	(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))  I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)		DATE SIGNED 12-DEC-2013

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0030

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

BRANDEIS UNIVERSITY OFFICE OF RESEARCH ADMINISTRATION 415 SOUTH STREET, MS116 WALTHAM, MA 02454

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBEF OF ANIMALS  (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	139	602	115	0	717

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

## UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0031

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

SANOFI PASTEUR BIOLOGICS CO

38 SIDNEY STREET

CAMBRIDGE, MA 02139

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROI		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	3	98	7	108
7. Hamsters	0	0	323	116	439
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	0	0	40	0	40
ASSURANCE STATEMENTS					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 01-MAY-2014

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0031

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

SANOFI PASTEUR BIOLOGICS CO

38 SIDNEY STREET

CAMBRIDGE, MA 02139

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	ACILITY (Attach additional sheets if necessary or use this form.)		
A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
COTTON RATS	0	0	40	0	40

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

(Chief Executive Officer	HEADQUARTERS RESEARCH FACILITY OFFICIAL  r (C.E.O.) or Legally Responsible Institutional Official (I.O.))  he above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)		DATE SIGNED 01-MAY-2014

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

## UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0032

HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

SHRINERS HOSPITAL FOR CHILDREN-BOSTON 51 BLOSSOM STREET

BOSTON, MA 02114

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	9				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED

22-NOV-2013

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0035

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL 55 LAKE AVENUE NORTH

WORCESTER, MA 01655

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	24	0	24
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	341	99	55	495
7. Hamsters	0	57	0	0	57
8. Rabbits	0	23	178	0	201
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	21	0	21
11. Pigs	0	0	32	0	32
12. Other Farm Animals					
13. Other Animals	0	771	107	0	878
ASSURANCE STATEMENT:					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

30-JAN-2014

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0035

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL

55 LAKE AVENUE NORTH

WORCESTER, MA 01655

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)					
A. Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
NILE GRASS RATS	0	771	107	0	878
ASSURANCE STATEMENTS	S				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

(Chief Executive Officer (C.E.C	DQUARTERS RESEARCH FACILITY OFFICIAL  O.) or Legally Responsible Institutional Official (I.O.)) is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)		DATE SIGNED 30-JAN-2014

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

#### 1. REGISTRATION NUMBER

14-R-0036

HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

UNIVERSITY OF MASSACHUSETTS AMHERST RESEARCH ADMINISTRATION BUILDING 70 BUTTERFIELD TERRACE AMHERST, MA 01003

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO	L OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	208	60	0	268
8. Rabbits	0	6	0	0	6
9. Non-human Primates	0	32	9	4	45
10. Sheep	0	18	0	0	18
11. Pigs	0	0	0	0	0
12. Other Farm Animals	0	2	0	0	2
13. Other Animals	0	3	0	0	3
ASSURANCE STATEMENT:	9				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 27-JAN-2014

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

(b)(6), (b)(7)(c)

APHIS FORM 7023

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

## CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0036

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

UNIVERSITY OF MASSACHUSETTS AMHERST RESEARCH ADMINISTRATION BUILDING

AMUEDOT MA 04002

70 BUTTERFIELD TERRACE

AMHERST, MA 01003

REPORT OF ANIMALS USE	REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)						
A. Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)		
EASTERN MOLES	0	3	0	0	3		
ASSURANCE STATEMENTS	<b>o</b>						

1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.

Each principal investigator has considered alternatives to painful procedures

- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

	CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL (Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))  I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)		DATE SIGNED 27-JAN-2014

2.)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0041

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

BECKER COLLEGE 61 SEVER STREET

WORCESTER, MA 01609

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROI	L OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	48	0	48
5. Cats	0	0	22	0	22
6. Guinea Pigs	0	14	0	0	14
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	5	0	5
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	0	2	0	0	2
ASSURANCE STATEMENT:					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

12-DEC-2013

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

## CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0041

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

BECKER COLLEGE

61 SEVER STREET

WORCESTER, MA 01609

REPORT OF ANIMALS USE	REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)					
A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)	
HORSES	0	2	0	0	2	

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

	(Chief Executive Officer	Y HEADQUARTERS RESEARCH FACILITY OFFICIA or (C.E.O.) or Legally Responsible Institutional Official (I.O. the above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)			DATE SIGNED 12-DEC-2013

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

## UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0042

HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

CYTOGEN RESEARCH & DEVELOPMENT INC 89 BELLEVUE HILL ROAD

WEST ROXBURY, MA 02132

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	586	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	S				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

16-DEC-2013

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0047

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

ARIAD PHARMACEUTICALS INC

125 BINNEY STREET

CAMBRIDGE, MA 02142

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

Α.	В.	C.	D. Number of animals upon	E. Number of animals upon which teaching,	F.
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBEF OF ANIMALS (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 03-FEB-2014

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0061

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

SMITH COLLEGE

CLARK SCIENCE CENTER/SMITH COLLEGE

NORTHAMPTON, MA 01063

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROI		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBE OF ANIMALS (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	70	25	0	0	25
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	86	107	13	0	120
ASSURANCE STATEMENT	<u> </u>				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 21-NOV-2013

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0061

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

SMITH COLLEGE

CLARK SCIENCE CENTER/SMITH COLLEGE

NORTHAMPTON, MA 01063

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)					
A. Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
MEADOW VOLES	86	107	13	0	120

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

	(Chief Executive Officer	Y HEADQUARTERS RESEARCH FACILITY OFFICIAL or (C.E.O.) or Legally Responsible Institutional Official (I.O.)) the above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)			DATE SIGNED 21-NOV-2013

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0062

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

ROBERT W MCALLISTER SR.

P.O. BOX 513

AMHERST, MA 01004

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

Α.	В.	C.	D. Number of animals upon	E. Number of animals upon which teaching,	F.
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	7000	5	5	0	10
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 21-NOV-2013

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

### 1. REGISTRATION NUMBER

14-R-0065

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

**TUFTS UNIVERSITY** 

LABORATORY ANIMAL MEDICINE SERVICE

200 WESTBORO ROAD BLDG 17

NORTH GRAFTON, MA 01536

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E
4. Dogs	0	0	49	0	49
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	3	3
7. Hamsters	0	0	3	33	36
8. Rabbits	0	3	339	0	342
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	84	19	0	103
11. Pigs	0	2040	23	96	2159
12. Other Farm Animals	0	75	48	0	123
13. Other Animals	0	2	101	0	103

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 18-FEB-2014

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

### **CONTINUATION SHEET FOR ANNUAL** REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

#### 1. REGISTRATION NUMBER

14-R-0065

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

**TUFTS UNIVERSITY** 

LABORATORY ANIMAL MEDICINE SERVICE

200 WESTBORO ROAD BLDG 17

NORTH GRAFTON, MA 01536

REPORT OF ANIMALS USE					-
A. Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E
HORSES	0	0	9	0	9
MINIPIGS	0	0	1	0	1
WHITE FOOTED MICE	0	2	91	0	93

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator 3.) and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL	L
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O	1.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED

18-FEB-2014

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0066

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

**EMBRYOTECH LABORATORIES INC** 

140 HALE STREET

HAVERHILL, MA 01830

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

Α.	В.	C.	D. Number of animals upon	E. Number of animals upon which teaching,	F.
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBEF OF ANIMALS (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	60	810	0	0	810
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 09-DEC-2013

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0074

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

**REVO BIOLOGICS INC** 175 CROSSING BLVD

FRAMINGHAM, MA 01702

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

TRANS OVA GENETICS GENETICS ADVANCE CNTR NORTH

				sary, or use APHIS FORM 7023A.)	I =
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals	538	0	18	0	18
13. Other Animals					
ASSURANCE STATEMENT					

#### ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 30-JAN-2014

SIGNATURE OF C.E.O. OR I.O. NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0079

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

TAKEDA CAMBRIDGE U S 40 LANDSDOWNE ST 6032

CAMBRIDGE, MA 02139

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER  OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 25-NOV-2013

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0081

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

UNIVERSITY OF MASSACHUSETTS 215 WANNALANCIT MIL 600 SUFFOLK STREET

LOWELL, MA 01854

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	9				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 26-NOV-2013

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0081

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

UNIVERSITY OF MASSACHUSETTS 215 WANNALANCIT MIL 600 SUFFOLK STREET

LOWELL, MA 01854

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	9				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 26-NOV-2013

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0083

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

NEW ENGLAND COLLEGE OF OPTOMETRY 424 BEACON STREET

BOSTON, MA 02115

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	8				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED

10-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0084

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

TUFTS UNIVERSITY IACUC/DLAM 136 HARRISON AVENUE

BOSTON, MA 02111

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	0	598	15	0	613
ASSURANCE STATEMENT:					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

26-NOV-2013

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0084

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA. include ZIP Code)

TUFTS UNIVERSITY

IACUC/DLAM

136 HARRISON AVENUE

BOSTON, MA 02111

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO	OF RESEARCH FACILITY	(Attach additional sheets if necess	sary or use this form.)	
A. Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER  OF ANIMALS  (Cols. C + D + E)
DEGUS	0	598	15	0	613
ASSURANCE STATEMENT	s	l	l		I

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

	(Chief Executive Officer	THEADQUARTERS RESEARCH FACILITY OFFICIAL or (C.E.O.) or Legally Responsible Institutional Official (I.O.)) the above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)			DATE SIGNED 26-NOV-2013

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0090

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

MOUNT IDA COLLEGE 777 DEDHAM STREET

NEWTON, MA 02459

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER  OF ANIMALS  (Cols. C + D + E
4. Dogs	0	0	52	0	52
5. Cats	0	0	34	0	34
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	27	0	0	27
8. Rabbits	0	11	0	0	11
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	0	6	0	0	6

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 21-NOV-2013

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0090

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

MOUNT IDA COLLEGE 777 DEDHAM STREET

NEWTON, MA 02459

REPORT OF ANIMALS USI	ED BY OR UNDER CONTRO	L OF RESEARCH FACILITY	(Attach additional sheets if necess	sary or use this form.)	
A. Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
GERBILS	0	6	0	0	6

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFI (Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)	DATE SIGNED 21-NOV-2013

ASSURANCE STATEMENTS

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

BOSTON, MA 02115

14-R-0092

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

BRIGHAM AND WOMENS HOSPITAL RESEARCH ADMINISTRATION 75 FRANCIS ST

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROI		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	60	415	0	475
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	2	22	0	24
11. Pigs	0	0	42	0	42
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 03-FEB-2014

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0094

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

WELLESLEY COLLEGE SCIENCE CENTER 106 CENTRAL STREET WELLESLEY, MA 02481

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	8				

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 13-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0096

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

MCLEAN HOSPITAL CORPORATION

115 MILL STREET

BELMONT, MA 02478

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	97	32	0	129
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	S				

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 18-FEB-2014

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0101

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

**TOXIKON CORPORATION** 

15 WIGGINS AVE

BEDFORD, MA 01730

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER  OF ANIMALS  (Cols. C + D + E
4. Dogs	0	205	104	0	309
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	13093	9	21	13123
7. Hamsters	0	147	0	0	147
8. Rabbits	0	2299	1074	3	3376
9. Non-human Primates	10	25	0	0	25
10. Sheep	0	0	0	0	0
11. Pigs	10	11	0	0	11
12. Other Farm Animals					
13. Other Animals	0	12	0	0	12

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 28-FEB-2014

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0101

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

TOXIKON CORPORATION

15 WIGGINS AVE

BEDFORD, MA 01730

	В	0	D. Number of animals upon	E. Number of animals upon which teaching.	l e
Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBE OF ANIMALS (Cols. C + D + E
FERRETS	0	12	0	0	12

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

(Chief Executive Office	Y HEADQUARTERS RESEARCH FACILITY OFFICIAL  er (C.E.O.) or Legally Responsible Institutional Official (I.O.)) the above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)		DATE SIGNED 28-FEB-2014

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0114

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

MOUNT HOLYOKE COLLEGE

BIOLOGY DEPARTMENT 50 COLLEGE STREET

SOUTH HADLEY, MA 01075

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROI		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following 1.) actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 09-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0119

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

MARINE BIOLOGICAL LABORATORY

7 MBL STREET

WOODS HOLE, MA 02543

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBEF OF ANIMALS  (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	2	0	2
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	0	0	30	0	30

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 03-FEB-2014

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0119

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

MARINE BIOLOGICAL LABORATORY

7 MBL STREET

WOODS HOLE, MA 02543

A. Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
GERBILS	0	0	30	0	30

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

(Chief Executive Office	Y HEADQUARTERS RESEARCH FACILITY OFFICIAL er (C.E.O.) or Legally Responsible Institutional Official (I.O.)) the above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)		DATE SIGNED 03-FEB-2014

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0123

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

GENZYME CORPORATION 49 NEW YORK AVENUE

FRAMINGHAM, MA 01701

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

GENZYME CORPORATION

THE PERMIT	PORYFOR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	9	0	9
8. Rabbits	5	0	223	0	223
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	4	0	4
12. Other Farm Animals	0	0	2	0	2
13. Other Animals					

#### ASSURANCE STATEMENTS

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 21-NOV-2013

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

(b)(6), (b)(7)(c)

JUL 2013

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

HARVARD UNIVERSITY

1414 MASSACHUSETTS AVENUE

**ROOM 233** 

14-R-0128

CAMBRIDGE, MA 02138

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

		,	,	
Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	5	5	0	10
0	0	0	0	0
5	0	2	0	2
255	12066	0	0	12066
	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	B. C.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.  O O O O O O O O O O O O O O O O O O O	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.  O O O O O O O O O O O O O O O O O O O	Number of animals being bred, conditioned, or held for use in teaching, research, surgery on tests were conducted involving accompanying pain or tests were conducted involving accompanying pain or distress to the animals and for which the use of pain-relieving drugs.  Number of animals being bred, conditioned, or held for use in teaching, research, experiments, or tests were conducted involving accompanying pain or distress to the animals and for which the use of particular or poparity and pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.  Number of animals upon which teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs were used.  O O O O O O O O O O O O O O O O O O O

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following 1.) actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 12-DEC-2013

SIGNATURE OF C.E.O. OR I.O. NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0128

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

HARVARD UNIVERSITY

1414 MASSACHUSETTS AVENUE

**ROOM 233** 

CAMBRIDGE, MA 02138

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	Attach additional sheets if necess	eary or use this form.)	
A. Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
DEER MICE	0	8203	0	0	8203
STRIPED MICE	180	3732	0	0	3732
JERBOAS	75	131	0	0	131
ASSURANCE STATEMENT	e				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

	CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL (Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))  I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)		DATE SIGNED 12-DEC-2013

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0135

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

ABBVIE BIORESEARCH CENTER MANAGER BIORESOURCES

100 RESEARCH DRIVE WORCESTER, MA 01605

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	8				

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 20-NOV-2013

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0138

HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

BETH ISRAEL DEACONESS MEDICAL CENTER SLOSBERG-LANDAY ANIMAL FACILITY 330 BROOKLINE AVENUE BOSTON, MA 02215

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	22	0	22
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	225	6	231
7. Hamsters	0	0	0	58	58
8. Rabbits	0	2	46	0	48
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	28	0	28
11. Pigs	0	0	155	0	155
12. Other Farm Animals					
13. Other Animals					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 28-JAN-2014

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0148

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

DA VINCI BIOMEDICAL RESEARCH PRODUCTS INC P O BOX 1125

SOUTH LANCASTER, MA 01561

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	188	0	188
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	143	0	143
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT	S				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED

12-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0156

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

CAPRALOGICS INC P O BOX 356

HARDWICK, MA 01037

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE  A.	В.	C.	D N along ( along )	E Notes Colonia de la Colonia	F.
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	5	4	24	0	28
7. Hamsters	0	0	0	0	0
8. Rabbits	64	96	382	0	478
9. Non-human Primates	0	0	0	0	0
10. Sheep	3	5	0	0	5
11. Pigs	0	0	0	0	0
12. Other Farm Animals	65	138	2	0	140
13. Other Animals					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 12-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0157

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

CELL SIGNALING TECHNOLOGY, INC.

3 TRASK LANE

DANVERS, MA 01923

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE A.	В.	C.	D. Number of animals upon	E. Number of animals upon which teaching,	F.
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBE OF ANIMALS (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	1225	0	1225
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					

#### ASSURANCE STATEMENTS

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 10-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0160

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

TGA SCIENCES INC 47 HALL STREET

MEDFORD, MA 02155

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROI		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	1	0	162	0	162
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT	9				

#### ASSURANCE STATEMENTS

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 26-NOV-2013

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

### UNITED STATES DEPARTMENT OF AGRICULTURE

### ANIMAL AND PLANT HEALTH INSPECTION SERVICE

### ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0164

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH INC ASSOC DIR, ANIMAL WELFARE COMPLIANCE

200 TECHNOLOGY SQUARE 1031G

CAMBRIDGE, MA 02139

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	L OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	1080	0	1080
7. Hamsters	0	0	110	0	110
8. Rabbits	0	0	715	0	715
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	0	12	1126	0	1138
ASSURANCE STATEMENT:					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print) DATE SIGNED

03-FEB-2014

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0164

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH INC

ASSOC DIR, ANIMAL WELFARE COMPLIANCE

200 TECHNOLOGY SQUARE 1031G

CAMBRIDGE, MA 02139

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)					
A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
COTTON RATS	0	12	1126	0	1138
ASSURANCE STATEMENTS					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

(Chief Executive Office	Y HEADQUARTERS RESEARCH FACILITY OFFICIAL  r (C.E.O.) or Legally Responsible Institutional Official (I.O.))  he above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)		DATE SIGNED 03-FEB-2014

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

PARATEK

14-R-0165

75 KNEELAND ST

BOSTON, MA 02111

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROI		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following 1.) actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143). NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 29-NOV-2013

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

## UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0168

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

BIOMODELS LLC

313 PLEASANT STREET

WATERTOWN, MA 02472

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	797	83	0	880
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	S				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

13-DEC-2013

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

### 1. REGISTRATION NUMBER

14-R-0173

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

MOMENTA PHARMACEUTICALS 675 WEST KENDALL STREET

CAMBRIDGE, MA 02030

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	s				

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following 1.) actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 10-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0177

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

WHEATON COLLEGE

VIVARIUM SCIENCE CENTER, 26 E MAIN ST

NORTON, MA 02766

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO	L OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	0	23	0	0	23
ASSURANCE STATEMENT:					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 26-NOV-2013

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0177

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

WHEATON COLLEGE

VIVARIUM SCIENCE CENTER, 26 E MAIN ST

NORTON, MA 02766

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)					
A. Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
DEGUS	0	23	0	0	23
ASSURANCE STATEMENTS	9				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

(Chief Executive Officer	HEADQUARTERS RESEARCH FACILITY OFFICIAL  r (C.E.O.) or Legally Responsible Institutional Official (I.O.))  he above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)		DATE SIGNED 26-NOV-2013

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0181

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

JOSLIN DIABETES CENTER INC

ONE JOSLIN PLACE

BOSTON, MA 02215

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	12	0	0	12
12. Other Farm Animals					
13. Other Animals					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 21-NOV-2013

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0182

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

VERTEX PHARMACEUTICALS INC

50 NORTHERN AVE

BOSTON, MA 02210

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER  OF ANIMALS  (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	3	162	0	165
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143). NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 03-FEB-2014

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0183

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

CBSET INC

500 SHIRE WAY

LEXINGTON, MA 02421

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)				
A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	5	0	57	0	57
9. Non-human Primates	0	0	0	0	0
10. Sheep	2	0	90	0	90
11. Pigs	39	0	833	0	833
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

11-DEC-2013

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0185

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

VIVISOURCE LABORATORIES INC 830 WINTER STREET

WALTHAM, MA 02451

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	25	25	0	50
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	0	0	100	0	100
ASSURANCE STATEMENTS	<u> </u> s				

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following 1.) actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 26-NOV-2013

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

## CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0185

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

VIVISOURCE LABORATORIES INC

830 WINTER STREET

WALTHAM, MA 02451

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)					
A. Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
GERBILS	0	0	100	0	100
ASSURANCE STATEMENTS	s				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

	(Chief Executive Officer	THEADQUARTERS RESEARCH FACILITY OFFICIAL or (C.E.O.) or Legally Responsible Institutional Official (I.O.)) the above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)			DATE SIGNED 26-NOV-2013

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0186

HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

FORSYTH DENTAL INFIRMARY FOR CHILDREN 245 FIRST STREET, 6TH FLOOR

CAMBRIDGE, MA 02142

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	10	0	10
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	9				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0189

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

GL SYNTHESIS INC ONE INNOVATION DRIVE

WORCESTER, MA 01605

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)					
A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	5	0	0	5
7. Hamsters	0	20	0	18	38
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 28-JAN-2014

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0192

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

BIOMEDICAL RESEARCH MODELS INC

**57-3 UNION STREET** 

WORCESTER, MA 01608

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)				
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	83	0	0	83
8. Rabbits	0	0	0	0	0
9. Non-human Primates	13	10	2	0	12
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:					

#### ASSURANCE STATEMENTS

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED

11-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0193

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

**BUTTONWOOD PARK ZOO** 425 HAWTHORN ST

NEW BEDFORD, MA 02740

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	2	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	1	0	0	0	0
11. Pigs	2	0	0	0	0
12. Other Farm Animals	14	0	0	0	0
13. Other Animals	23	2	0	0	2
ASSURANCE STATEMENT:	s				

#### 1.)

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143). NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 09-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

## CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0193

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

BUTTONWOOD PARK ZOO 425 HAWTHORN ST

NEW BEDFORD, MA 02740

			(Attach additional sheets if necess	•	
A. Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
ASIAN ELEPHANTS	0	2	0	0	2
BLACK BEARS	3	0	0	0	0
NA RIVER OTTERS	3	0	0	0	0
NA BEAVERS	3	0	0	0	0
HARBOR SEALS	3	0	0	0	0
COYOTES	1	0	0	0	0
MT LIONS	2	0	0	0	0
CANADA LYNX	1	0	0	0	0
BOBCATS	2	0	0	0	0
BISON	2	0	0	0	0
WHITE TAILED DEER	3	0	0	0	0

#### ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICAT	ON BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
	e Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.)) ertify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED

09-DEC-2013

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0194

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

ENANTA PHARMACEUTICALS

500 ARSENAL ST

WATERTOWN, MA 02472

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)						
A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)	
4. Dogs	0	0	0	0	0	
5. Cats	0	0	0	0	0	
6. Guinea Pigs	0	0	0	0	0	
7. Hamsters	0	0	0	0	0	
8. Rabbits	0	0	0	0	0	
9. Non-human Primates	0	0	0	0	0	
10. Sheep	0	0	0	0	0	
11. Pigs	0	0	0	0	0	
12. Other Farm Animals						
13. Other Animals						
ASSURANCE STATEMENT:						

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 03-FEB-2014

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0195

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

E M D MILLIPORE CORPORATION 290 CONCORD ROAD

BILLERICA, MA 01821

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROI	L OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	78	0	78
7. Hamsters	0	0	0	0	0
8. Rabbits	135	2347	0	0	2347
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	16	0	0	16
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	21	469	0	0	469
ASSURANCE STATEMENT					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 09-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

## CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0195

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

E M D MILLIPORE CORPORATION

290 CONCORD ROAD

BILLERICA, MA 01821

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	L OF RESEARCH FACILITY	(Attach additional sheets if necess		
A. Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
GOATS	21	469	0	0	469
	l .		l .		

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

(Chief Executive Officer	HEADQUARTERS RESEARCH FACILITY OFFICIAL  r (C.E.O.) or Legally Responsible Institutional Official (I.O.))  he above is true, correct, and complete (7 U.S.C. Section 2143).	
(b)(6), (b)(7)(c)		09-DEC-2013

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0196

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

BAYSTATE MEDICAL CENTER 759 CHESTNUT STREET

SPRINGFIELD, MA 01199

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROI		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBEI OF ANIMALS (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	1	0	43	0	43
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT					

#### ASSURANCE STATEMENTS

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED

12-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0197

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

COYOTE CONSULTING COMPANY INC

77 VINE STREET

DOUGLAS, MA 01516

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	117	0	0	0	0
12. Other Farm Animals					
13. Other Animals					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED

SIGNATURE OF C.E.O. OR I.O. NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

(b)(6), (b)(7)(c)

09-DEC-2013

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0198

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

WORCESTER STATE UNIVERSITY
DEPARTMENT OF ACADEMIC AFFAIRS
486 CHANDLER ST

WORCESTER, MA 01602

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	s				

#### ASSURANCE STATEMENTS

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 18-FEB-2014

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0199

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

VIVOPATH LLC 55 UNION STREET

WORCESTER, MA 01608

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	10	0	0	10
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	160	0	160
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	S				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED

10-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0200

 HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

ACCURO FARMS INC 346 BLACKMER RD

SOUTHBRIDGE, MA 01550

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	4	0	0	4
11. Pigs	0	5	0	0	5
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	9				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 09-DEC-2013

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

(b)(6), (b)(7)(c)

JUL 2013

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0201

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

**BIOGEN IDEC INC** 

14 CAMBRIDGE CENTER

BLDG 8 5TH FLOOR

CAMBRIDGE, MA 02142

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 25-NOV-2013

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

**EISALINC** 

14-R-0202

4 CORPORATE DRIVE

ANDOVER, MA 01810

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	7	0	8	0	8
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 09-DEC-2013

(b)(6), (b)(7)(c)

SIGNATURE OF C.E.O. OR I.O.

JUL 2013

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0203

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

TRANSMEDICS INC 200 MINUTEMAN RD SUITE 302

ANDOVER, MA 01810

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	95	0	95
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT	S				

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143). NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 12-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN Fiscal Year 2013

## UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0204

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

AGILUX LABORATORIES
3 BIOTECH, 1 INNOVATION DR

WORCESTER, MA 01605

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROI		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBEI  OF ANIMALS  (Cols. C + D + E
4. Dogs	0	100	0	0	100
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT					

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

12-DEC-2013

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0206

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

VIVISOURCE LABORATORIES INC 830 WINTER STREET

WALTHAM, MA 02451

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	50	69	119
8. Rabbits	0	0	60	0	60
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	0	0	100	0	100

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

DATE SIGNED 28-JAN-2014

SIGNATURE OF C.E.O. OR I.O.

OMB APPROVED 0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-R-0206

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

VIVISOURCE LABORATORIES INC

830 WINTER STREET

WALTHAM, MA 02451

KEPOKT OF ANIMALS USE	D BT OK ONDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets if necess		
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
GERBILS	0	0	100	0	100

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH F.  (Chief Executive Officer (C.E.O.) or Legally Responsible Inst  I certify that the above is true, correct, and complete (7 U.S.C. Sec	itutional Official (I.O.))	
(b)(6), (b)(7)(c)		JAN-2014

OMB APPROVED 0579-0036 Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-R-0207

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

PERKIN ELMER INC 68 ELM STREET

HOPKINTON, MA 01748

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	8				

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 16-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

### 1. REGISTRATION NUMBER

14-V-0001

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

EDITH NOURSE ROGERS MEMORIAL VETERAN'S HOSPITAL

IACUC COORDINATOR BLDG 12, 200 SPRINGS ROAD

BEDFORD, MA 01730

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	8				

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 13-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER 14-V-0003

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

VA MEDICAL CENTER (525) 1400 VFW PARKWAY

WEST ROXBURY, MA 02132

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTROL	OF RESEARCH FACILITY	(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	28	0	28
12. Other Farm Animals					
13. Other Animals					
ASSURANCE STATEMENT:	s				

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 03-FEB-2014

(b)(6), (b)(7)(c)

OMB APPROVED Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control No. 0180-DOA-AN

Fiscal Year 2013

#### UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NUMBER

14-V-0004

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

VA MEDICAL CENTER (523) 150 S HUNTINGTON AVENUE

BOSTON, MA 02130

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USE	D BY OR UNDER CONTRO		(Attach additional sheets, if neces	sary, or use APHIS FORM 7023A.)	
A.  Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	20	0	20
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	2	0	2
12. Other Farm Animals					
13. Other Animals					

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected. 3.)
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

#### **CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED 03-FEB-2014

(b)(6), (b)(7)(c)

#### Column E Explanation

Facility Name: Massachusetts Eye and Ear Infirmary

Registration Number: 14-R-0022

4

Rhesus monkeys (n=2), squirrel monkeys (n=3) and guinea pigs (n=7) are restrained for vestibular and perception testing. During testing, the animal's head is held in a fixed, forward facing position. Rhesus and squirrel monkeys are restrained in size-appropriate primate chairs while guinea pigs are restrained in a custom Velcro holding device. All animals undergoing vestibular and perception testing are extensively trained to accept the restraint procedures, however, the potential for distress is unavoidable in conscious, restrained animals.

During acoustic brain recordings in conscious rabbits (n=30) the animal is restrained in a Velcro jacket while the head is held in a fixed, forward facing position. The animals have been previously trained to accept the restraint procedure; however the potential for distress is unavoidable during measurements in conscious, restrained animals.

The scientific justification for why the potential for distress cannot be relieved is the same for all the Category E procedures described above, as follows:

There is no alternative to performing vestibular and perception studies or acoustic neuronal measurements in conscious animals without restraint and withholding agents that would sedate or tranquilize them. All species utilized for these studies are trained and acclimate well to the restraint and testing procedures described above. The animals do not appear distressed either during or following repeated measurements, however, if an animal shows signs of distress at any time during an experimental procedure, the experiment for that day is canceled.



USDA Annual Report 01 Oct 2012 – 30 Sep 2013 Registration Number: 14-R-0031 Explanation of Category E Items

Number of animals and species used:

Infectious Disease Research Species: 108 Guinea Pigs

Category E: 7

#### Procedure used:

This procedure is used as a model for recurring herpes simplex virus-2 disease. The initial infection is induced by the administration of a suspension of herpes simplex virus-2. As a refinement, animals receive an infusion of purified human immunoglobulin to reduce mortality and morbidity during the acute phase of the disease. Acute disease appears within 7-10 days and lasts approximately 14 days.

#### Measures to detect and relieve pain:

During the acute phase, research staff checks all animals twice a day seven days a week. The scoring system includes an assessment for urine retention, neurologic impairment, the extent and severity of viral lesions and an overall evaluation of activity, appetite and body condition. Animals with moderate virus lesions receive pain medication (buprenorphine 0.05 mg/kg SQ BID or sustained release buprenorphine 1.2 mg/kg SQ q3days) and supportive care. Animals with severe lesions or which do not respond to analgesia are euthanized. We report these in Category D. A small number of animals with rapidly progressive disease are found dead or are euthanized in a moribund condition. We report these in Category E.

#### Justification:

The focus of this research is to develop a therapeutic vaccine for recurring herpes simplex virus-2 infections. Herpes simplex virus-2 disease affects over 530 million people around the world. A fourth of them suffer painful recurrences during their lifetime for which there is no effective cure. Current therapeutic treatment of the symptoms from recurrent disease is only partially successful and therefore there is a significant unmet medical need for a therapeutic vaccine for herpes simplex virus-2.



USDA Annual Report 01 Oct 2012 – 30 Sep 2013 Registration Number: 14-R-0031 Explanation of Category E Items

Number of Animals and Species Used:

Infectious Disease Research Species: 439 Hamsters Category E: 116

#### Procedure used:

Disease is induced in hamsters by the administration of clindamycin and a suspension of *Clostridium difficile* bacteria. Diarrhea develops 1-5 days after induction, mediated by secreted bacterial toxins, and ranges in severity from mild ("wet tail") to acutely fatal as a result of bacterial toxins.

#### Measures to detect and relieve pain:

All animals are checked at least twice a day seven days a week by research and facility staff. Each animal's health is scored for weight and behavior in addition to disease symptoms (diarrhea). As a result of this monitoring procedure, we are almost always able to humanely euthanize animals at the first sign of significant disease. We report these animals in Category D. Because of the acute effect of the bacterial toxin in some animals, some animals are found dead without preliminary signs of disease. We report this subset of animals in Category E.

#### Justification:

Clostridium difficile associated diarrhea (CDAD) is a serious unmet medical need, causing severe to fatal disease in more than 300,000 patients per year, including more than 1% of all hospitalized patients. The hamster model exhibits the same pathophysiology as the human disease and is the gold standard model for CDAD research into prevention and treatment of this condition.

·University of Hassachusetts Hedical School
14-R-0035 14-R-0035 Column E explanations 55 Guinea Pigs

\*Category E in vivo testing performed on Dockets A-2207and A-2184 at the Massachusetts Biologic Laboratories (MBL), part of the University of Massachusetts Medical School - are death as an endpoint assays mandated by the Code of Federal Regulations. The assays are mandatory and required in order for MBL to maintain licensure to manufacture and distribute vaccine product.

#### A-2184

21 CFR 610.1 and 21 CFR 610.10 (requirement for potency testing of each lot of Food and Drug Administration licensed biological product)

21 CFR 211.166 (requirement for a stability testing program for FDA licensed drug products)

Diphtheria potency testing uses death as an endpoint. The current assay does not allow for the use of analgesics without FDA approval. Any pain-relieving drugs are not used as alleviation of pain or distress may alter the disease progression in the established model and may interfere with the interpretation of the results.

#### A-2207

21 CFR 211.84 Food and Drug Administration. Requires the testing of each lot of drug components to be used in manufacture. The Public Health Service, National Institutes of Health, dated March 1, 1947 (tetanus) and revision December 15, 1952 (diphtheria) stipulate that the potency of the parent toxin must be evaluated either by in vivo titration against standard antitoxin or by the MLD method. Both methods involve toxin induced symptoms and death of guinea pigs as an end-point. The MLD method can be accomplished using fewer animals and thus is selected for use.

Tetanus and diphtheria MLD assay, death by intoxication is the required assay endpoint. The current assay does not allow for the use of analgesics without FDA approval. Any pain-relieving drugs are not used as alleviation of pain or distress may alter the disease progression in the established model and may interfere with the interpretation of the results.

#### Category E explanations

1. Registration Number: 14-R-0036

2. Species: marmoset

3. Number: 4

z

### Marmoset acclimation and imaging procedures:

Prior to imaging, all marmosets, control and experimental, will undergo mock neuroimaging procedures and therefore will be acclimated to the restraint needed for these procedures beforehand. Acclimation consists of a series of at least five mock imaging sessions. Following acclimation to the imaging procedure all monkeys, control and experimental, will receive 2 imaging sessions.

During these procedures, we cannot deliver any anesthetic, analgesic, or tranquilizing drugs to alleviate potential stress associated with the procedures because the animal needs to be fully awake in the scanner so that we can study their brain activity in response to visual stimuli under different hormonal conditions. The administration of any medications would affect the animal's brain activity and their response to stimuli and would therefore adversely affect the data being collected.

The restraint and the noise of the MRI scanner are undoubtedly somewhat stressful, which is why we have developed acclimation procedures to habituate the animals to the imaging procedure ahead of time and therefore minimize stress. Although we cannot completely eliminate all stress, our collaborator has data showing that the stress associated with restraint for a typical imaging session is no greater (after acclimation) than the regular stress experienced by marmosets when they are in an unstable peer group. Although we do not anticipate any adverse effects of the imaging procedures, subjects will be monitored for the next 24 hours for any signs of lethargy, failure to eat, and/or diarrhea. If any of these symptoms occur, the veterinarian will immediately be consulted and appropriate treatment will be given. We will consult with the veterinarian regularly throughout the study. We will also monitor the monkey's health daily, including behavioral evaluations, and weekly weight checks.



#### TUFTS UNIVERSITY School of Veterinary Medicine

Tufts University Cummings School of Veterinary Medicine North Grafton, Massachusetts 2012-2013 Annual Report of Research Facility Registration Number: 14-R-0065

#### Explanation for Column E:

In this protocol, the life cycle of tickborne pathogens using simulated natural cycle of transmission is studied. Ticks naturally feed on rodents, and the infectious diseases we study are maintained in nature by rodents. Ticks are brushed onto the anesthetized and/or restrained animal. In most instances, a typical host-parasite relationship has been developed, and pathology occurs mainly as a function of non-natural dose or infection in a non-natural host (or immunecompromised host). The number of ticks that infest the animals is what might be expected to occur in nature, and tick delivered infections run a natural course. Ticks detach between days 4-7. The experimental hosts do not disproportionately experience distress and pain due to tickfeeding or infection; thus drugs are not administered to relieve pain or distress unless there is clear evidence on an individual basis that there is significant distress (ticks might accumulate around eyes, nostrils, or within the ear canal proper) in which case animals are euthanized immediately. Antibiotics or antipyretics cannot be administered because we seek to maintain the infections in as natural a manner as possible. Artificial feeding of ticks would not simulate the processes of inflammation, cell recruitment, hormonal milieu, etc. that may be critical for optimal pathogen transmission. We have yet to be able to efficiently infect ticks and maintain the full life cycle of any of the agents we study without needing a living animal host.

Species: Hamster Number: 33

Guinea pigs are an excellent model of bacterial and viral infectious diseases, but some of the scientific material needed for these studies that are specific to guinea pigs are lacking. The goal of this protocol is to produce antibodies against guinea pig proteins. To increase the levels of several of the molecules of interest, a high number of peritoneal macrophages are required. Brewer thioglycollate medium is used to do this. Brewer's thioglycollate medium is not expected to be toxic, but will likely induce peritonitis. Analgesics will be administered to alleviate discomfort, but peritonitis will not be alleviated because the goal of this study is to increase the number of the peritoneal macrophages.

Species: Guinea Pig Number: 3

The goal of this study is to determine the causes of C. difficile disease and to develop and test new preventative and therapeutic products that could eventually be used in humans and animals

with C. difficile disease. Swine infected with C. difficile or B. megaterium expressing C. difficile toxins may experience unrelieved pain or distress due to gastrointestinal or systemic illness. While the clinical manifestations of C. difficile may be treated by administration of antibiotics, and pain and inflammation resulting from infection may be partially relieved by administration of analgesics or anti-inflammatory drugs, this would resolve the infection and diminish the host response we are trying to study and would negate the purpose of the study.

Species: Swine Number: 45

The gnotobiotic swine used in this study are orally infected with EHEC, EPEC, ETEC and EAE strains of E. coli. In addition swine infected with strains that produce Stx1 or Stx2. All of the potential adverse effects that may be seen are related to E. coli infection. The only means by which to abrogate development of the expected adverse effects is to administer antibiotics to which these E. coli strains are susceptible. Unfortunately, this will eliminate the E. coli infection. Given that the basis of this study relies on in vivo infection with these E. coli strains, administration of such antibiotics would obviate the purpose of this study. Administration of anti-diarrheal drugs or analgesics would be expected to eliminate the diarrhea and/or abdominal/gastrointestinal pain associated with this diarrhea. Given that one of the goals of this study is to evaluate the effect of E. coli-associated virulence factors, reduction or elimination of these clinical signs would inhibit the ability to evaluate the effect of the virulence factors. Species: Swine Number: 22

Swine are used as a model to study cryptosporidiosis to evaluate the causes of the disease and produce oocyts to support laboratory-based studies directed at further understanding the causes of cryptosporidiosis. Swine will be challenged with *Cryptosporidium* sp. oocyts. Swine typically shed *Cryptosporidium* sp. oocyts for up to 3 weeks following inoculation. Although infection with *Cryptosporidium* sp. is responsive to the antibiotics, paromomycin and nitazoxanide, treatment of the swine with these drugs would eliminate the infection and subsequent oocyst shedding. Administration of anti-diarrheal drugs would also be expected to eliminate the diarrhea that occurs as a result of *Cryptosporidium* sp. infection. Elimination of the diarrhea would reduce fecal oocyst shedding. Administration of analgesics would be expected to alleviate the gastrointestinal and abdominal discomfort associated, but may also affect gastrointestinal motility and/or oocyst production and shedding. Thus, interfering with the goal of the study to passage and propagate the infectious for of this parasite.

Species: Swine Number: 8

The gnotobiotic piglets used in this study have been assigned to Category E because they will be orally infected with strains of *Shigella* sp. Such strains are expected to induce diarrhea. As a result, these piglets may also become weak and dehydrated. All of the potential adverse effects that may be seen are related to *Shigella* sp. infection. The only means by which to abrogate development of the expected adverse effects is to administer antibiotics to which these *Shigella* sp. strains are susceptible which would eliminate the infection. Given that the basis of this study relies on in vivo infection with these strains, administration of such antibiotics would obviate the purpose of this study. Administration of anti-diarrheal drugs or analgesics would be expected to eliminate the diarrhea and/or abdominal/gastrointestinal pain associated with this diarrhea. The main goal of this study is to utilize gnotobiotic piglets as a non-primate model of Shigella sp. infection. Administration of anti-diarrheal drugs would likely inhibit or affect *Shigella* sp. growth and thus, infection, thereby interfering with our ability to assess the establishment of this model and efficacy of vaccine candidates. Administration of analgesics may result in elimination or alteration of the clinical signs which we are monitoring as a means to evaluate efficacy of candidate vaccines. Species: Swine Number: 21

#### Column E Explanation

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Nur	nber:	14-R-0082
2. Number	38	of animals used in this study.
3. Species (commo	n name) _	hamster

4. Explain the procedure producing pain and/or distress.

Hamsters are used for the development of antibodies to native mouse proteins. On day zero blood is collected to screen for endogenous antibody production, after which hamsters are injected with a mixture of the protein or synthetic peptide of interest and Freund's Complete Adjuvant to stimulate immune response. On day 14, injections are repeated with the protein or peptide of interest with Freund's Incomplete Adjuvant and on Day 35 these injections are repeated. On Day 45 blood is obtained to monitor the immune response. On Day 56 the animals with the best immune response receive injections of the protein or peptide of interest. Finally, on day 59, animals are euthanized, the spleen is removed, and cells isolated for fusion.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below).

These animals are all Category E and will therefore not be treated for the transient distress. Any treatment that would diminish the effects of antigen/Complete Adjuvant, would interfere with the production of a strong immune response, and therefore render the animal less useful for the generation of hybridomas. Following injections, animals will be observed for 30 min. The health of the animals will be again checked at 6 hours, and 24 hours. The discomfort that the animals experience is transient and is over after 24 hours. After 24 hours, animals return to weekly monitoring since the transitory distress will have abated. Past the first 24 hours post immunization, any animal observed to be in distress will be evaluated for euthanasia. Clinical symptoms of distress include, but not limited to: continued hunched appearance, lack of movement, lack of feeding and drinking. Weights will be monitored once a week and any animals that shows a loss of >15% baseline weight will be euthanized.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g. APHIS, 9 CFR 113:102):

#### Column E Explanation

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Registration Number:	14-R-0082
2. Number <b>1</b>	of animals used in this study.
3. Species (common name) _	swine
4. Explain the procedure proc	lucing pain and/or distress.

Induction of diabetes via an intravenous injection of of streptozotocin (STZ).

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below).

Use of STZ can cause nausea, vomiting, and diarrhea. Later side effects of STZ administration include nephrotoxicity, liver damage, hypoglycemia, and myelosuppression. However, analgesics cannot be used to treat these conditions and therefore the animals are placed in Category E since the induction of diabetes is necessary to our analysis.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g. APHIS, 9 CFR 113:102):

N/A

1 of 2

#### **Optional Column E Explanation Form**

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- 1. Registration Number: 14-R-101
- 2. Number of animals used in the study (s): Twenty one Guinea Pigs and three Rabbit may have experienced pain or distress without alleviation.
- 3. Specie (common name) of animals used in this study (s). Guinea Pig/Rabbit
- 4. Explain the procedure producing pain and/or distress.

Exposure to a test article (pharmaceutical agent) for FDA required nonclinical safety testing. The above animals were placed on Toxicity studies that are categorized by the IACUC as either Category C or D. Specifically the guinea pigs were utilized on Kligman Sensitization studies. One rabbit was utilized in a muscle implantation study as part of a Class VI test; the other two rabbits were on a Skin Irritation study. None of the above animals were on a category E protocol, but were reassigned to category E at the conclusion of the study after being found dead. All guinea pigs and rabbits were found dead in their cages at the next daily clinical observation. All animals were previously noted as normal prior to being found dead,. The toxicity studies listed above do not incorporate painful and/or distressful procedures as part of the normal course of the study, thus they are categorized as C or D. Investigations by veterinary services as well as histopathology and/or gross necropsies are conducted on all found dead animals. In all cases the clinical observation schedules were followed per the IACUC protocol and those previous clinical observations did not indicate any signs of pain or distress. Since no definitive cause of death can be confirmed, Toxikon defaultly places all found dead animals into Category E, as pain or distress cannot be ruled out, since there was no observation of pain or distress prior to the animals being found dead. Toxikon follows this recategorization practice as instructed by our (b) (6), (b) (7)(C)

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see question 6 below)

Studies conducted at Toxikon are performed for sponsors to obtain toxicity information on experimental materials, drugs or chemicals, or to ensure the safety of a new lot of material. Regulatory guidelines do not permit the use of analgesic or anesthetics during toxicity determination studies. However, Toxikon does employee a step approach, exposing one or two animals at a time, thus minimizing the total number of animals needed. Toxikon's IACUC approves and monitors all animal use protocols. The animals in question were found expired while on study. Since they were not observed at the time, Toxikon assumes that they may have been in pain or distress and re-categorizes them in Category E.

2 of 2

# 6. What, if any, federal regulations require this procedure? Cite the agency, the Code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):

Kligman Maximization studies are conducted according the following published guidelines:

ISO 10993-10, 2010, Biological Evaluation of Medical Devices, Part 10: Tests for Irritation and Skin Sensitization.

OECD 406, Organization for Economic Co-operation and Development, Guidelines for Testing of Chemicals, "Skin Sensitization," adopted 17 July, 1992.

Skin Irritation and Corrosion studies are conducted according to the following published guidelines:

OECD 404, Organization for Economic Co-operation and Development, Guidelines for the Testing of Chemicals, "Acute Dermal Irritation/Corrosion", adopted 24 April 2002.

ISO/IEC 17025, 2005, General Requirements for the Competence of Testing and Calibration Laboratories.

Muscle Implantation of a Class VI Test – USP studies are conducted according to the following published guidelines:

ISO 10993-6, 2007. Biological Evaluation of Medical Devices, Part 6: Tests for Local Effects After Implantation.

USP -NF, Current Revision. <1031> The Biocompatibility of Materials Used in Drug Containers, Medical Devices, and Implants.

All studies follow the following guidelines:

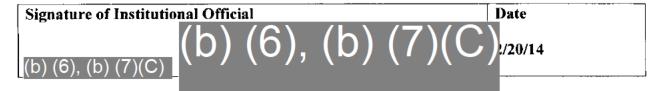
ISO 10993-1, 2009: Biological Evaluation of Medical Devices, Part 1: Evaluation and Testing Within a Risk Management Process.

ISO 10993-12, 2012, Biological Evaluation of Medical Devices, Part 12: Sample Preparation and Reference Materials.

Required Biocompatibility Training and Toxicology Profiles for Evaluation of Medical Devices May 1, 1995 (G95-1).

ICH Harmonized Tripartite Guideline. Note for Guidance on Toxicokinetics: The Assessment of Systemic Exposure in Toxicity Studies, S3A, 1994. FDA: Published in the Federal Register, Vol. 60, No. 40, March 1, 1995, pages 11264-11268.

ICH Harmonized Tripartite Guideline. Dose Selection for Carcinogenicity Studies of Pharmaceuticals, 1997 (revised). FDA: First published in the Federal Register, Vol. 60, No.40, March 1, 1995, pages 11278-11281, Revision published in the FR, Vol. 62, No. 233, December 4, 1997, page 64260.



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### **Optional Column E Explanation Form**

This form is intended as an aid to completing the Column E explanation. It is <u>not</u> an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by laypersons as well as scientists.

- 1. Registration Number: 14-R-101
- 2. Number of animals used in the study (s): Twenty one Guinea Pigs and three Rabbit may have experienced pain or distress without alleviation.
- 3. Specie (common name) of animals used in this study (s). Guinea Pig/Rabbit
- 4. Explain the procedure producing pain and/or distress.

Exposure to a test article (pharmaceutical agent).

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see question 6 below)

Studies conducted at Toxikon are performed for sponsors to obtain toxicity information on experimental materials, drugs or chemicals, or to ensure the safety of a new lot of material. Regulatory guidelines do not permit the use of analgesic or anesthetics during toxicity determination studies. However, Toxikon does employee a step approach, exposing one or two animals at a time, thus minimizing the total number of animals needed. Toxikon's IACUC approves and monitors all animal use protocols. The animals in question were found expired while on study. Since they were not observed at the time, Toxikon assumes that they may have been in pain or distress and re-categorizes them in Category E.

6. What, if any, federal regulations require this procedure? Cite the agency, the Code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):

Based upon the following standards:

Organization for Economic Co-operation and Development (OECD), Guidelines for Testing of Chemicals, "Repeated Dose Oral Toxicity - Rodent: 28-day or 14-day Study," Section 407 (adopted 27 July 1995).

ICH Harmonized Tripartite Guideline. Note for Guidance on Toxicokinetics: The Assessment of Systemic Exposure in Toxicity Studies, S3A, 1994. FDA: Published in the Federal Register, Vol. 60, No. 40, March 1, 1995, pages 11264-11268.

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ICH Harmonized Tripartite Guideline. Dose Selection for Carcinogenicity Studies of Pharmaceuticals, 1997 (revised). FDA: First published in the Federal Register, Vol. 60, No.40, March 1, 1995, pages 11278-11281, Revision published in the FR, Vol. 62, No. 233, December 4, 1997, page 64260.

Sign(h)(6)(h)(7)(0)	Date
(D) (O), (D) (7)(C)	11/26/13
(b) (6), (b) (7)(C)	

#### Optional Column E Explanation Form

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1.	Registration	Number:	14-R-0138

- 2. Number <u>58</u> of animals used in this study.
- 3. Species (common name) <u>hamsters</u> of animals used in this study.
- 4. Explain the procedure producing pain and/or distress.

Hamsters are given a single injection of clindamycin phosphate (10 mg/kg s.c.) on Day 0 and one day later (Day 1) will be infected by gavage with 10<sup>5</sup> cfu of toxigenic *C difficile* strain 10463. A fulminant colitis results in the majority of the animals and develops 1 to 3 days after the administration of *C. difficile*. Untreated this progresses rapidly into severe colitis, hemographic necrosis of the cecum and death.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see question 6 below)

Hamsters will not be provided with antispasmodic drugs. The pain in this animal model is due to increased gut motility in response to the enterotoxin C. difficile. The major point of the therapy of C. difficile colitis is to avoid spasmodic drugs. The study includes inhibiting the inflammatory response in the gut. Other forms of pain relief will not be used because it may affect the responses that are being measured. Animals which appear to be under acute distress and moribund will be sacrificed to ensure that they experience the minimum period of pain.

6.	What, if any, federal regu	ilations require this	s procedure? Ci	ite the agency, the C	Code of
	Federal Regulations (CFI	<ol> <li>title number and</li> </ol>	d the specific se	ction number (e.g., A	APHIS, 9
	CFR 113.102):				
	Agency		CFR		

#### Optional Column E Explanation Form

This form is intended as an aid to completing the Column E explanation. It is <u>not</u> an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

- 1. Registration Number: <u>14-R-0138</u>
- 2. Number 6 of animals used in this study.
- 3. Species (common name) guinea pigs of animals used in this study.
- 4. Explain the procedure producing pain and/or distress.

A guinea pig underwent a vena cava blood draw. The animal was anesthetized using 3-4% isoflurane and restrained in dorsal recumbency. After prepping the animal, the manubrium of the sternum was palpated and the needle inserted lateral to the manubrium under the first right rib at a 30-35° angle to the horizontal axis of the animal. The needle was inserted ½ inch, slightly negative pressure applied and slowly withdrawn. No blood was obtained so this procedure was repeated. successfully. The guinea pig recovered as expected. Two days later, the guinea pig was found dead in its cage. A necropsy was performed and the chest cavity was full of lymphatic fluid. It was determined that the research staff must have nicked a lymphatic vessel when inserting the needle.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see question 6 below)

Although pain relief is provided to guinea pigs, an amendment was submitted and approved by the IACUC for the following:

Since the vena cava blood draw in guinea pigs is a blind stick in that the chest is not opened, there is the potential that a lymphatic or similar vessel may be nicked. An animal with a nicked vessel will normally recover from anesthesia and may not display any clinical signs of distress prior to death, usually within 48 hours. This occurs in a very small percentage of procedures and is unavoidable even by very experienced individuals. Due to several unintended deaths in guinea pigs in this manner, the investigator assigned a portion of his experimental animals to fall under USDA Category E.

6.		ederal regulations tions (CFR) title	•	•		
	Agency			CER		

Animals placed in Column "E" in this report were enrolled in studies undertaken for product registration purposes based on regulatory guidelines of the FDA 21 CFR 312.23 for pharmacology and toxicology studies and the Red Book. Guidance for study design and conduct also conformed with recommendations by the International Conference on Harmonization Guidelines. This guidance includes Part VII, DHHS, FDA, International Conference on Harmonization; Guidance on non-clinical safety studies for the conduct of human clinical trial for pharmaceuticals, Federal Register, Vol. 62, #227, November 25, 1997.

As per the ICH Guideline M3(R1) regulatory citation, "The goals of the non-clinical safety evaluation include a characterization of toxic effects with respect to target organs, dose dependence, relationship to exposure, and potential reversibility. This information is important for estimation of an initial safe starting dose for the human clinical trials and the identification of parameters for clinical monitoring for potential adverse effects. The non-clinical safety studies...should be adequate to characterize potential toxic effects under the conditions of the supported clinical trial."

During the conduct of an animal toxicology study that is required by regulatory agencies, it is possible that some of the clinical signs of toxicity may result in more than momentary pain and/or distress. However, if one does not allow these signs of toxicity to develop, then the primary scientific goal of characterizing the toxic effects of the test article will not be achieved (and the study would be considered invalid by the regulatory authorities). Results of toxicology studies become part of the safety assessment of the potential new human drug that will result in the determination of an initial exposure of human subjects and the identification of parameters for clinical monitoring for potential adverse effects of the drug on people. During the conduct of an animal toxicology study, each drug-related effect is evaluated by the attending veterinary staff and the study director to determine if treatment to alleviate more than momentary distress/pain could interfere with the regulatory purpose/scientific goal (conduct) of the study. Treatments that could interfere with the purpose of conduct of the study are prohibited by FDA Good Laboratory Practice regulations [§ 58.90 (c)] and are withheld to assure that toxic effects can be evaluated.

Depending upon the nature of the compound, certain other regulations and guidelines promulgated by the FDA, EPA, TSCA, FIFRA and the OECD also apply and are listed in the Applicable Guidelines/Regulations section below.

Animals are placed in Category "E" following retrospective analysis. Retrospective categorization of pain or distress was made by the Attending Veterinarian (or their designee, also a laboratory animal veterinarian) in conjunction with the Study Director. Professional judgment calls, particularly with regard to the diagnosis of distress, were purposely conservative with a default of category E if there was any doubt.

The following are applicable guidelines and regulations covering the conduct of studies at all Charles River Laboratory Preclinical Services facilities (listed below).

- Redbook 2000 Toxicological Principles for the Safety Assessment of Food Ingredients November 2003.
- PART VII, DHHS, FDA, International Conference on Harmonization; Guidance on Non-Clinical Safety Studies for the Conduct of Human Clinical Trial For Pharmaceuticals, Federal Register, Vol. 62, No. 227, Nov 25, 1997
- EPA Health Effects Test Guidelines OPPTS 870.3050, 28-Day Oral Toxicity in Rodents, July 2000
- EPA Health Effects Test Guidelines OPPTS 870.3150, 90-Day Oral Toxicity in Non-Rodents, August 1998
- EPA Health Effects Test Guidelines OPPTS 870.3100, 90-Day Oral Toxicity in Rodents, August 1998
- EPA Health Effects Test Guidelines OPPTS 870.4100, Chronic Toxicity, August 1998
- EPA Health Effects Test Guidelines OPPTS 870.3500, Preliminary Developmental Toxicology Screen, March 1994

- EPA Health Effects Test Guidelines OPPTS 870.3600, Inhalational Developmental Toxicity Study
  March 1994

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- EPA Health Effects Test Guidelines OPPTS 870.3700, Prenatal Developmental Toxicity Study, August 1995
- EPA Health Effects Test Guidelines OPPTS 870.3800, Reproduction and Fertility Effects, August 1995
- OECD Guideline for the Testing Of Chemicals, Repeated Dose 90-day Oral Toxicity Studies in Non-Rodents, 409, September 1998
- OECD Guideline for the Testing Of Chemicals, Repeated Dose 90-day Oral Toxicity Studies in Rodents, 408, September 1998
- OECD Guideline for the Testing Of Chemicals, Repeated Dose 28-day Oral Toxicity Studies in Rodents, 407, July 1995
- U.S. Food and Drug Administration (1994). International Conference on Harmonization; Guideline on detection of toxicity to reproduction for medicinal products. *Federal Register*, September 22, 1994, Vol. 59, No. 183.
- U.S. Food and Drug Administration. Good Laboratory Practice Regulations; Final Rule. 21 CFR Part 58; last revised April 1, 2002; U.S. Federal Government Archives.
- Japanese Ministry of Health, Labour and Welfare (1997). Good Laboratory Practice Standard for Safety Studies on Drugs, MHW Ordinance Number 21, March 26, 1997.
- Organisation for Economic Co-operation and Development (1998). The Revised OECD Principles of Good Laboratory Practices [C(97) 186/Final].
- U.S. Food and Drug Administration (2003). *Guidance for Industry Photosafety Testing*, Center for Drug Evaluation and Research (DCER), May 2003
- Organisation for Economic Co-operation and Development (1987). *Guidelines for Testing of Chemicals*. Section 4, No. 402: Acute Dermal Toxicity, pp. 1-7
- Organisation for Economic Co-operation and Development (1992). *Guidelines for Testing of Chemicals*. Section 4, No. 406: Skin Sensitization, pp. 1-9.
- Drug Registration Requirements in Japan, 4th Edition (19910. Yakuji Nippo, Ltd., Tokyo, pp. 61-64.
- U.S. Food and Drug Administration (2005) Investigational New Drug Application, Title 21, Part 321.23, 8.ii.a
- Organisation for Economic Co-operation and Development (1998). The Revised OECD Principles of Good Laboratory Practices [ENV/MC/CHEM(98)17]
- U.S. Dept of Health and Human Services Food and Drug Administration. Guideline for Industry; detection of toxicity to reproduction for medicinal products, (ICH) S5A; September, 1994. Rockville.
- Pharmaceutical Affairs Bureau, Ministry of Health, Labour and Welfare, GLP standard ordinance for non-clinical laboratory studies on safety of drugs, MHW Ordinance No. 21; March 26, 1997. Japan.
- OECD Environment Directorate. OECD Principles of Good Laboratory Practices, [C(97) 186/Final] (1998); Environmental Health and Safety Division
- U.S. Food and Drug Administration (1993). Points to consider in the characterization of cell lines used to produce biologicals.
- European Pharmacopoeia Monograph 5.2.3, Cell substrates for production of vaccines for human use. 01/2005:50203
- U.S. Dept of Health and Human Services Food and Drug Administration. Guideline for Industry; toxicokinetics: the assessment of systemic exposure in toxicity studies, ICHS3A; March, 1995, Rockville (MD).
- International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use: Guidance for Industry, MD(R1) Nonclinical Safety Studies for the Conduct of Human Clinical Trials for Pharmaceuticals.
- FDA Guidance for Industry characterization and qualification of cell substrates and other biological materials used in the production of viral vaccines for infectious disease indications Feb 2010.
- European Pharmacopea monograph 5.2.3 Cell substrates for production of vaccines for human use 01/2005;50203

#### **REVIEW OF CATETORY "E" STUDIES**

The following studies have been listed in Category "E" based upon the guidelines stated in the preface at the beginning of this report. The study designs that resulted in certain animals being placed retrospectively into Category "E" were required by federal regulations and guidelines listed in the applicable regulations/guidelines section below. For the purpose of this report studies have been given a unique number that corresponds to the actual study number. For reasons of confidentiality, actual study numbers are not presented but are available to the USDA for on-site inspection or report follow-up. Category "E" explanations/details are listed separately for each study.

Study: #1

Animals: 1 Rabbit

Type of Study: Dose Range-Finding Embryo-Fetal Development Study

#### Guidelines/Regulations:

• This study was conducted to support subsequent required regulatory studies, and by that requirement, a maximum tolerated dose (MTD) is required to be included in the full study to assess the safety of the test material. This dosage-range study was done to determine dosage selection for future studies that will be based on U.S. Department of Health and Human Services Food and Drug Administration: Guidelines for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September 1994, Rockville, MD. These guidelines require that dosages produce some maternal toxicity. Conducting the dosage range study prior to a full study, allows the determination of a toxic dose acceptable while only using a few animals. Without conduct of this dosage-range study prior to the required full developmental toxicity studies, larger numbers of animals may be needed for the full study.

Diagnosis: One rabbit from this dose range-finding embryo-fetal development study.

#4995 died acutely. The animal had exhibited body weight loss (20% over approximately eighteen days) and a reduction in feed consumption during some of that time period. Supplemental feed items and a secondary water source were provided. While not premonitory of death, decreased motor activity, ptosis and bradypnea were observed prior to death. This animal was categorized as E since it is possible that some of the clinical signs or the inappetance and weight loss may have been consistent with more than momentary distress prior to acute death.

Study: #2

Animals: 1 Rabbit

Type of Study: Dosage Range-Finding Study

#### Guidelines/Regulations:

This study was conducted to support subsequent required regulatory studies, and by that requirement, a maximum tolerated dose (MTD) is required to be included in the full study to assess the safety of the test material. This dosage-range study was done to determine dosage selection for future studies that will be based on U.S. Department of Health and Human Services Food and Drug Administration: Guidelines for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September 1994, Rockville, MD. These guidelines require that dosages produce some maternal toxicity. Conducting the dosage range study prior to a full study, allows the determination of a toxic dose acceptable while only using a few animals. Without conduct of this dosage-range study prior to the required full developmental toxicity studies, larger numbers of animals may be needed for the full study.

#### Diagnosis:

One rabbit from this dosage range-finding study.

#5575 experienced body weight loss (21% over approximately fifteen days) and a reduction in feed consumption during that same time period. Supplemental feed items and a secondary water source were provided. The animal was euthanized when

decreased activity, dehydration, ataxia and hyperpnea were observed. While the animal was euthanized when these clinical signs were observed, it is possible that the inappetance and weight loss prior to euthanasia may have been consistent with more than momentary distress so this rabbit was categorized as E.

Study: #3

Animals: 4 Rabbits

Type of Study: Dosage Range-Finding Study

#### Guidelines/Regulations:

• This study was conducted to support subsequent required regulatory studies, and by that requirement, a maximum tolerated dose (MTD) is required to be included in the full study to assess the safety of the test material. This dosage-range study was done to determine dosage selection for future studies that will be based on U.S. Department of Health and Human Services Food and Drug Administration: Guidelines for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September 1994, Rockville, MD. These guidelines require that dosages produce some maternal toxicity. Conducting the dosage range study prior to a full study, allows the determination of a toxic dose acceptable while only using a few animals. Without conduct of this dosage-range study prior to the required full developmental toxicity studies, larger numbers of animals may be needed for the full study.

#### Diagnosis:

Four rabbits from this dosage range-finding study.

#6889 experienced body weight loss (20% over approximately eighteen days) and a reduction in feed consumption during some of that time period. Supplemental feed items and a secondary water source were provided. It is possible that inappetance and weight loss may have been consistent with more than momentary distress and therefore this rabbit was categorized as E.

#6897 and #6898 experienced body weight loss (17.5-19.6% over approximately 11-13 days) and a reduction in feed consumption during some of that time period. Supplemental feed items and a secondary water source were provided. The animals were euthanized. While the animals were euthanized, it is possible that the inappetance and weight loss prior to euthanasia may have been consistent with more than momentary distress so these rabbits were categorized as E. #6891 experienced body weight loss (17% over approximately nineteen days) and a reduction in feed consumption. Supplemental feed items and a secondary water source were provided. The animal was euthanized when determined it was no longer pregnant. It is possible that the inappetance and weight loss may have been consistent with more than momentary distress so this animal was categorized as E.

Study: #4

Animals: 2 Rabbits

Type of Study: Dosage Range-Finding Study

#### Guidelines/Regulations:

• This study was conducted to support subsequent required regulatory studies, and by that requirement, a maximum tolerated dose (MTD) is required to be included in the full study to assess the safety of the test material. This dosage-range study was done to determine dosage selection for future studies that will be based on U.S. Department of Health and Human Services Food and Drug Administration: Guidelines for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September 1994, Rockville, MD. These guidelines require that dosages produce some maternal toxicity. Conducting the dosage range study prior to a full study, allows the determination of a toxic dose acceptable while only using a few animals. Without conduct of this dosage-range study prior to the required full developmental toxicity studies, larger numbers of animals may be needed for the full study.

#### Diagnosis:

Two rabbits from this dosage range-finding study.

#5954 and #5958 experienced body weight loss (19% over approximately 10-11 days) and a reduction in feed consumption during some of that time period. Supplemental feed items and a secondary water source were provided. The animals were euthanized. While the animals were euthanized, it is possible that the inappetance and weight loss prior to euthanasia may have been consistent with more than momentary distress so these rabbits were categorized as E.

Study: #5

Animals: 3 Rabbits

Type of Study: Dose Range-Finding Embryo-Fetal Development Study

#### Guidelines/Regulations:

• This study was conducted to support subsequent required regulatory studies, and by that requirement, a maximum tolerated dose (MTD) is required to be included in the full study to assess the safety of the test material. This dosage-range study was done to determine dosage selection for future studies that will be based on U.S. Department

of Health and Human Services Food and Drug Administration: Guidelines for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September 1994, Rockville, MD. These guidelines require that dosages produce some maternal toxicity. Conducting the dosage range study prior to a full study, allows the determination of a toxic dose acceptable while only using a few animals. Without conduct of this dosage-range study prior to the required full developmental toxicity studies, larger numbers of animals may be needed for the full study.

Diagnosis:

Three rabbits from this dose range-finding embryo-fetal development study.

#4759 died acutely. The animal had exhibited body weight loss (14% over approximately three days) and a reduction in feed consumption during some of that time period. Supplemental feed items and a secondary water source were provided. While not premonitory of death, decreased motor activity and hyperpnea were observed prior to death. This animal was categorized as E since it is possible that some of the clinical signs or the inappetance and weight loss may have been consistent with more than momentary distress prior to acute death.

#4758 experienced body weight loss (14% over approximately six days) and a reduction in feed consumption during some of that time period. Supplemental feed items and a secondary water source were provided. The animal was euthanized. While the animals was euthanized, it is possible that the inappetance and weight loss prior to euthanasia may have been consistent with more than momentary distress so this rabbit was categorized as E.

#4756 experienced body weight loss (15% over approximately six days) and a reduction in feed consumption during some of that time period. Supplemental feed items and a secondary water source were provided. It is possible that inappetance and weight loss may have been consistent with more than momentary distress and therefore this rabbit was categorized as E.

Study: #6

Animals: 1 Rabbit

Type of Study: Dose Range-Finding Embryo-Fetal Development Study

#### Guidelines/Regulations:

• This study was conducted to support subsequent required regulatory studies, and by that requirement, a maximum tolerated dose (MTD) is required to be included in the full study to assess the safety of the test material. This dosage-range study was done to determine dosage selection for future studies that will be based on U.S. Department of Health and Human Services Food and Drug Administration: Guidelines for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September 1994, Rockville, MD. These guidelines require that dosages produce some maternal toxicity. Conducting the dosage range study prior to a full study, allows the determination of a toxic dose acceptable while only using a few animals. Without conduct of this dosage-range study prior to the required full developmental toxicity studies, larger numbers of animals may be needed for the full study.

Diagnosis:

One rabbit from this dose range-finding embryo-fetal development study.

#3321 experienced body weight loss (20% over approximately fifteen days) and a reduction in feed consumption during some of that time period. Supplemental feed items and a secondary water source were provided. It is possible that inappetance and weight loss may have been consistent with more than momentary distress and therefore this rabbit was categorized as E.

Study: #7

Animals: 2 Rabbits

Type of Study: Dose Range-Finding Embryo-Fetal Development Study

#### Guidelines/Regulations:

• This study was conducted to support subsequent required regulatory studies, and by that requirement, a maximum tolerated dose (MTD) is required to be included in the full study to assess the safety of the test material. This dosage-range study was done to determine dosage selection for future studies that will be based on U.S. Department of Health and Human Services Food and Drug Administration: Guidelines for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September 1994, Rockville, MD. These guidelines require that dosages produce some maternal toxicity. Conducting the dosage range study prior to a full study, allows the determination of a toxic dose acceptable while only using a few animals. Without conduct of this dosage-range study prior to the required full developmental toxicity studies, larger numbers of animals may be needed for the full study.

Diagnosis:

Two rabbits from this dose range-finding embryo-fetal development study.

#1606 died acutely. While not premonitory of death, inappetance, dehydration, bradypnea and pale extremities were observed prior to death. This animal was categorized as E since it is possible that some of the clinical signs or the inappetance may have been consistent with more than momentary distress prior to acute death.

#1617experienced body weight loss (23% over approximately nine days) and a reduction in feed consumption during that same time period. Supplemental feed items and a secondary water source were provided. The animal was euthanized when

decreased activity, dehydration, ptosis and decreased body temperature were observed. While the animal was euthanized when these clinical signs were observed, it is possible that the inappetance and weight loss prior to euthanasia may have been consistent with more than momentary distress so this rabbit was categorized as E.

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Study: #8

Animals: 7 Rabbits

Type of Study: Embryo-Fetal Development Study

#### Guidelines/Regulations:

- U.S. Food and Drug Administration. Good Laboratory Practice Regulations; Final Rule. 21 CFR Part 58; last revised April 1, 2002; U.S. Federal Government Archives.
- ICH Harmonized Tripartite Guideline. Detection of Toxicity to Reproduction for Medicinal Products, and Toxicity
  to Male Fertility S5 (R2). Parent Guideline dated 24 June 1993. Adopted by CPMP, September 93, issued as
  CPMP/ICH/386/95. This study evaluates ICH Harmonised Tripartite Guideline stages C and D of the reproductive
  process.
- U.S. Dept of Health and Human Services Food and Drug Administration. Guideline for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September, 1994. Rockville (MD) Federal Register, September 22, 1994, Vol. 59, No. 183.
- Japanese Ministry of Health, Labour and Welfare (1997). Good Laboratory Practice Standard for Safety Studies on Drugs, MHW Ordinance Number 21, March 26, 1997.
- Organisation for Economic Co-operation and Development (1998). The Revised OECD Principles of Good Laboratory Practices [ENV/MC/CHEM(98)17]

#### Diagnosis:

Seven rabbits from this embryo-fetal development study.

#3929, #3988 and #4031 experienced body weight loss (15%, 16% and 26% respectively over approximately twenty two days) and a reduction in feed consumption during some of that period. Supplemental feed items and a secondary water source were provided. The animals were euthanized when determined they were no longer pregnant. It is possible that the inappetance and weight loss may have been consistent with more than momentary distress so these animals were categorized as E.

#3987,#3993,#3995 and #4030 experienced body weight loss (15-23% over approximately ten to twenty-three days) and a reduction in feed consumption during part of that time period. Supplemental feed items and a secondary water source were provided. Intermittent clinical signs including mild dehydration, bradypnea, ptosis and cool to touch were observed. It is possible that some of the intermittent clinical signs or the inappetance and weight loss may have been consistent with more than momentary distress and therefore this rabbit was categorized as E.

Study: #9

Animals: 1 Rabbit

Type of Study: Dosage Range-Finding Study

#### Guidelines/Regulations:

• This study was conducted to support subsequent required regulatory studies, and by that requirement, a maximum tolerated dose (MTD) is required to be included in the full study to assess the safety of the test material. This dosage-range study was done to determine dosage selection for future studies that will be based on U.S. Department of Health and Human Services Food and Drug Administration: Guidelines for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September 1994, Rockville, MD. These guidelines require that dosages produce some maternal toxicity. Conducting the dosage range study prior to a full study, allows the determination of a toxic dose acceptable while only using a few animals. Without conduct of this dosage-range study prior to the required full developmental toxicity studies, larger numbers of animals may be needed for the full study.

#### Diagnosis:

One rabbit from this dosage range-finding study.

#6153experienced body weight loss (22% over approximately nine days) and a reduction in feed consumption during that same time period. Supplemental feed items and a secondary water source were provided. The animal was euthanized when decreased activity, hyperpnea, ataxia and decreased body temperature were observed. While the animal was euthanized when these clinical signs were observed, it is possible that the inappetance and weight loss prior to euthanasia may have been consistent with more than momentary distress so this rabbit was categorized as E.

Study: #10

Animals: 1 Rabbit

Type of Study: Dose Range-Finding Embryo-Fetal Development Study

Guidelines/Regulations:

This study was conducted to support subsequent required regulatory studies, and by that requirement, a maximum tolerated dose (MTD) is required to be included in the full study to assess the safety of the test material. This
 dosage-range study was done to determine dosage selection for future studies that will be based on U.S. Department of Health and Human Services Food and Drug Administration: Guidelines for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September 1994, Rockville, MD. These guidelines require that

of Health and Human Services Food and Drug Administration: Guidelines for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September 1994, Rockville, MD. These guidelines require that dosages produce some maternal toxicity. Conducting the dosage range study prior to a full study, allows the determination of a toxic dose acceptable while only using a few animals. Without conduct of this dosage-range study prior to the required full developmental toxicity studies, larger numbers of animals may be needed for the full study.

#### Diagnosis:

One rabbit from this dose range-finding embryo-fetal development study.

#1649 experienced body weight loss (21% over approximately nineteen days) and a reduction in feed consumption during some of that time period. Supplemental feed items and a secondary water source were provided. It is possible that inappetance and weight loss may have been consistent with more than momentary distress and therefore this rabbit was categorized as E.

Study: #11

Animals: 1 Rabbit

Type of Study: Fertility, Embryo-Fetal Development and Postnatal Activity Study

#### Guidelines/Regulations:

- U.S. Food and Drug Administration. Good Laboratory Practice Regulations; Final Rule. 21 CFR Part 58; last revised April 1, 2002; U.S. Federal Government Archives.
- ICH Harmonized Tripartite Guideline. Detection of Toxicity to Reproduction for Medicinal Products, and Toxicity to Male Fertility S5 (R2). Parent Guideline dated 24 June 1993. Adopted by CPMP, September 93, issued as CPMP/ICH/386/95. This study evaluates ICH Harmonised Tripartite Guideline stages C and D of the reproductive process.
- U.S. Dept of Health and Human Services Food and Drug Administration. Guideline for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September, 1994. Rockville (MD) Federal Register, September 22, 1994, Vol. 59, No. 183.
- Japanese Ministry of Health, Labour and Welfare (1997). Good Laboratory Practice Standard for Safety Studies on Drugs, MHW Ordinance Number 21, March 26, 1997.
- Organisation for Economic Co-operation and Development (1998). The Revised OECD Principles of Good Laboratory Practices [ENV/MC/CHEM(98)17]

#### Diagnosis:

One rabbit from this fertility, embryo-fetal development and postnatal activity study.

**#4460** died acutely. The animal had exhibited reduced feed intake for two days. Supplemental feed items and a secondary water source were provided. While not premonitory of death, decreased motor activity, cool to touch and bradypnea were observed prior to death. This animal was categorized as E since it is possible that some of the clinical signs or the inappetance may have been consistent with more than momentary distress prior to acute death.

Study: #12

Animals: 10 Rabbits

Type of Study: Daily Infusion Dosage Range-Finding Study

#### Guidelines/Regulations:

• This study was conducted to support subsequent required regulatory studies, and by that requirement, a maximum tolerated dose (MTD) is required to be included in the full study to assess the safety of the test material. This dosage-range study was done to determine dosage selection for future studies that will be based on U.S. Department of Health and Human Services Food and Drug Administration: Guidelines for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September 1994, Rockville, MD. These guidelines require that dosages produce some maternal toxicity. Conducting the dosage range study prior to a full study, allows the determination of a toxic dose acceptable while only using a few animals. Without conduct of this dosage-range study prior to the required full developmental toxicity studies, larger numbers of animals may be needed for the full study.

#### Diagnosis:

Ten rabbits from this daily infusion dosage range-finding study.

#1781 died acutely. The animal had exhibited injection site irritation and discomfort when the infusion site was palpated. Treatment consisted of cold compresses and rotation of injection sites. No other clinical signs were observed prior to death. This animal was categorized as E since it is possible that some of the clinical signs associated with the injection site may have been consistent with more than momentary distress prior to acute death.

#1766,#1794,#1796,#2167 and #2170 exhibited injection site irritation and discomfort when the infusion site was palpated.

Treatment consisted of cold compresses, dosing holidays and rotation of injection sites. The animals were otherwise bright. alert and active with normal feed intake. These animals were categorized as E since it is possible that some of the clinical DEC 0 2 201 signs associated with the injection site may have been consistent with more than momentary distress prior to acute death. #1799 exhibited injection site irritation and discomfort when the infusion site was palpated. Treatment consisted of cold compresses, dosing holidays and rotation of injection sites. The animal was euthanized when determined that it was no longer pregnant. This animal was categorized as E since it is possible that some of the clinical signs associated with the injection site may have been consistent with more than momentary distress prior to euthanasia.

#1776.#1777 and #2175 exhibited injection site irritation and discomfort when the infusion site was palpated. Treatment consisted of cold compresses, dosing holidays and rotation of injection sites. The animals were euthanized when additional clinical signs, such as decreased activity, cool to touch, ataxia and paleness were observed. While the animals were euthanized when the additional clinical signs were observed, these animal were categorized as E since it is possible that some of the clinical signs associated with the injection site may have been consistent with more than momentary distress prior to euthanasia.

Study: #13

Animals: 3 Rabbits

Type of Study: Dosage Range-Finding Study

#### Guidelines/Regulations:

This study was conducted to support subsequent required regulatory studies, and by that requirement, a maximum tolerated dose (MTD) is required to be included in the full study to assess the safety of the test material. This dosage-range study was done to determine dosage selection for future studies that will be based on U.S. Department of Health and Human Services Food and Drug Administration: Guidelines for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September 1994, Rockville, MD. These guidelines require that dosages produce some maternal toxicity. Conducting the dosage range study prior to a full study, allows the determination of a toxic dose acceptable while only using a few animals. Without conduct of this dosage-range study prior to the required full developmental toxicity studies, larger numbers of animals may be needed for the full study.

Three rabbits from this dosage range-finding study.

#6121,#6122 and #6127 died acutely. While not premonitory of death, neurologic and respiratory clinical system signs were observed prior to death. These animals were categorized as E since it is possible that some of the clinical signs may have been consistent with more than momentary distress prior to acute death.

Study: #14

Animals: 2 Rabbits

Type of Study: Developmental Toxicity Study

#### Guidelines/Regulations:

- U.S. Food and Drug Administration. Good Laboratory Practice Regulations; Final Rule. 21 CFR Part 58; last revised April 1, 2002; U.S. Federal Government Archives.
- ICH Harmonized Tripartite Guideline. Detection of Toxicity to Reproduction for Medicinal Products, and Toxicity to Male Fertility S5 (R2). Parent Guideline dated 24 June 1993. Adopted by CPMP, September 93, issued as CPMP/ICH/386/95. This study evaluates ICH Harmonised Tripartite Guideline stages C and D of the reproductive
- U.S. Dept of Health and Human Services Food and Drug Administration. Guideline for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September, 1994. Rockville (MD) Federal Register, September 22, 1994, Vol. 59, No. 183.
- Japanese Ministry of Health, Labour and Welfare (1997). Good Laboratory Practice Standard for Safety Studies on Drugs, MHW Ordinance Number 21, March 26, 1997.
- Organisation for Economic Co-operation and Development (1998). The Revised OECD Principles of Good Laboratory Practices [ENV/MC/CHEM(98)17]

#### Diagnosis:

Two rabbits from this developmental toxicity study.

#1284 and #1290 experienced body weight loss (18% over approximately nine - sixteen days) and a reduction in feed consumption. Supplemental feed items and a secondary water source were provided. The animals were euthanized when determined that they were no longer pregnant. It is possible that the inappetance and weight loss may have been consistent with more than momentary distress so these animals was categorized as E.

Study: #15

Animals: 4 Rabbits

Type of Study: Embryo-Fetal Development Study

#### Guidelines/Regulations:

- •• U.S. Food and Drug Administration. Good Laboratory Practice Regulations; Final Rule. 21 CFR Part 58; last DEC 0 2 2013 revised April 1, 2002; U.S. Federal Government Archives.
- ICH Harmonized Tripartite Guideline. Detection of Toxicity to Reproduction for Medicinal Products, and Toxicity to Male Fertility S5 (R2). Parent Guideline dated 24 June 1993. Adopted by CPMP, September 93, issued as CPMP/ICH/386/95. This study evaluates ICH Harmonised Tripartite Guideline stages C and D of the reproductive process.
- U.S. Dept of Health and Human Services Food and Drug Administration. Guideline for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September, 1994. Rockville (MD) Federal Register, September 22, 1994, Vol. 59, No. 183.
- Japanese Ministry of Health, Labour and Welfare (1997). Good Laboratory Practice Standard for Safety Studies on Drugs, MHW Ordinance Number 21, March 26, 1997.
- Organisation for Economic Co-operation and Development (1998). The Revised OECD Principles of Good Laboratory Practices [ENV/MC/CHEM(98)17]

#### Diagnosis:

Four rabbits from this embryo-fetal development study.

#6261 and #6262 experienced body weight loss (18-25% over approximately fifteen days) and a reduction in feed consumption during that same time period. Supplemental feed items and a secondary water source were provided. The decision was made to euthanize the animals when decreased activity and ataxia were observed. While the decision to euthanize the animals was made when these additional clinical signs were observed, it is possible that the inappetance and weight loss prior to euthanasia may have been consistent with more than momentary distress so this rabbit was categorized as E.

#6278 and #6279 experienced body weight loss (18-20% over approximately eleven days) and a reduction in feed consumption during some of that period. Supplemental feed items and a secondary water source were provided. The animals were euthanized when determined that they were no longer pregnant. It is possible that the inappetance and weight loss may have been consistent with more than momentary distress so these animals were categorized as E.

Study: #16

Animals: 4 Rabbits

Type of Study: Embryo-Fetal Development Study

#### Guidelines/Regulations:

- U.S. Food and Drug Administration. Good Laboratory Practice Regulations; Final Rule. 21 CFR Part 58; last revised April 1, 2002; U.S. Federal Government Archives.
- ICH Harmonized Tripartite Guideline. Detection of Toxicity to Reproduction for Medicinal Products, and Toxicity to Male Fertility S5 (R2). Parent Guideline dated 24 June 1993. Adopted by CPMP, September 93, issued as CPMP/ICH/386/95. This study evaluates ICH Harmonised Tripartite Guideline stages C and D of the reproductive process.
- U.S. Dept of Health and Human Services Food and Drug Administration. Guideline for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September, 1994. Rockville (MD) Federal Register, September 22, 1994, Vol. 59, No. 183.
- Japanese Ministry of Health, Labour and Welfare (1997). Good Laboratory Practice Standard for Safety Studies on Drugs, MHW Ordinance Number 21, March 26, 1997.
- Organisation for Economic Co-operation and Development (1998). The Revised OECD Principles of Good Laboratory Practices [ENV/MC/CHEM(98)17]

#### Diagnosis:

Four rabbits from this embryo-fetal development study.

#210 and #211 experienced body weight loss (20% over approximately fourteen to sixteen days) and a reduction in feed consumption during some of that period. Supplemental feed items and a secondary water source were provided. The animals were euthanized when determined that they were no longer pregnant. It is possible that the inappetance and weight loss may have been consistent with more than momentary distress so these animals were categorized as E.

#230 experienced body weight loss (18% over approximately sixteen days) and a reduction in feed consumption during some of that time period. Supplemental feed items and a secondary water source were provided. It is possible that inappetance and weight loss may have been consistent with more than momentary distress and therefore this rabbit was categorized as E. #258 died acutely. The animal had exhibited decreased feed consumption and body weight loss (18 over approximately thirteen days). Supplemental feed items and a secondary water source were provided. No premonitory clinical signes were observed prior to death. These animals were categorized as E since it is possible that inappetance and weight loss may have been consistent with more than momentary distress prior to acute death.

**Study: #17** 

Animals: 3 Rabbits

Type of Study: Embryo-Fetal Development Study

#### Guidelines/Regulations:

DEC | 0 2 2013 • U.S. Food and Drug Administration. Good Laboratory Practice Regulations; Final Rule. 21 CFR Part 58; last revised April 1, 2002; U.S. Federal Government Archives.

ICH Harmonized Tripartite Guideline. Detection of Toxicity to Reproduction for Medicinal Products, and Toxicity to Male Fertility S5 (R2). Parent Guideline dated 24 June 1993. Adopted by CPMP, September 93, issued as CPMP/ICH/386/95. This study evaluates ICH Harmonised Tripartite Guideline stages C and D of the reproductive

- U.S. Dept of Health and Human Services Food and Drug Administration. Guideline for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September, 1994. Rockville (MD) Federal Register, September 22, 1994, Vol. 59, No. 183.
- Japanese Ministry of Health, Labour and Welfare (1997). Good Laboratory Practice Standard for Safety Studies on Drugs, MHW Ordinance Number 21, March 26, 1997.
- Organisation for Economic Co-operation and Development (1998). The Revised OECD Principles of Good Laboratory Practices [ENV/MC/CHEM(98)17]

#### Diagnosis:

**Three rabbits** from this embryo-fetal development study.

#329 and #333 experienced body weight loss (18% over approximately eight to twelve days) and a reduction in feed consumption during some of that period. Supplemental feed items and a secondary water source were provided. The animals were euthanized when determined that they were no longer pregnant. It is possible that the inappetance and weight loss may have been consistent with more than momentary distress so these animals were categorized as E. #347 experienced body weight loss (22% over approximately eleven days) and a reduction in feed consumption during some

of that time period. Supplemental feed items and a secondary water source were provided. It is possible that inappetance and weight loss may have been consistent with more than momentary distress and therefore this rabbit was categorized as E.

Study: #18

Animals: 2 Rabbits

Type of Study: Dose Range-Finding Embryo-Fetal Development Study

#### Guidelines/Regulations:

This study was conducted to support subsequent required regulatory studies, and by that requirement, a maximum tolerated dose (MTD) is required to be included in the full study to assess the safety of the test material. This dosage-range study was done to determine dosage selection for future studies that will be based on U.S. Department of Health and Human Services Food and Drug Administration: Guidelines for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September 1994, Rockville, MD. These guidelines require that dosages produce some maternal toxicity. Conducting the dosage range study prior to a full study, allows the determination of a toxic dose acceptable while only using a few animals. Without conduct of this dosage-range study prior to the required full developmental toxicity studies, larger numbers of animals may be needed for the full

#### Diagnosis:

Two rabbits from this dose range-finding embryo-fetal development study.

#9072 and #9075 was observed to have motor activity abnormalities, ataxia, bradypnea, decreased feed consumption and associated body weight loss. Supplemental feed items and a secondary water source were provided. The animals were euthanized when clinical signs did not improve and their clinical condition declined. While the animals were euthanized when their conditions declined, these animals were categorized as E since it is possible that some of the clinical signs may have been consistent with more than momentary distress prior to euthanasia.

Study: #19

Animals: 1 Rabbit

Type of Study: Embryo-Fetal Development and Postnatal Assessment Study

#### Guidelines/Regulations:

- U.S. Food and Drug Administration. Good Laboratory Practice Regulations; Final Rule. 21 CFR Part 58; last revised April 1, 2002; U.S. Federal Government Archives.
- ICH Harmonized Tripartite Guideline. Detection of Toxicity to Reproduction for Medicinal Products, and Toxicity to Male Fertility S5 (R2). Parent Guideline dated 24 June 1993. Adopted by CPMP, September 93, issued as CPMP/ICH/386/95. This study evaluates ICH Harmonised Tripartite Guideline stages C and D of the reproductive process.
- U.S. Dept of Health and Human Services Food and Drug Administration. Guideline for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September, 1994. Rockville (MD) Federal Register, September 22, 1994, Vol. 59, No. 183.
- Japanese Ministry of Health, Labour and Welfare (1997). Good Laboratory Practice Standard for Safety Studies on

Drugs, MHW Ordinance Number 21, March 26, 1997.

Organisation for Economic Co-operation and Development (1998). The Revised OECD Principles of Good

Laboratory Practices [ENV/MC/CHEM(98)17]

Diagnosis: One rabbit from this embryo-fetal development and postnatal assessment study.

#2544 experienced body weight loss (19% over approximately fifteen days) and a reduction in feed consumption during that time period. Supplemental feed items and a secondary water source were provided. It is possible that inappetance and weight loss may have been consistent with more than momentary distress and therefore this rabbit was categorized as E.

Study: # 20

Animals: 1 Rabbit

Type of Study: Embryo-Fetal Development Study

#### Guidelines/Regulations:

- U.S. Food and Drug Administration. Good Laboratory Practice Regulations; Final Rule. 21 CFR Part 58; last revised April 1, 2002; U.S. Federal Government Archives.
- ICH Harmonized Tripartite Guideline. Detection of Toxicity to Reproduction for Medicinal Products, and Toxicity to Male Fertility S5 (R2). Parent Guideline dated 24 June 1993. Adopted by CPMP, September 93, issued as CPMP/ICH/386/95. This study evaluates ICH Harmonised Tripartite Guideline stages C and D of the reproductive process.
- U.S. Dept of Health and Human Services Food and Drug Administration. Guideline for Industry: detection of toxicity to reproduction for medicinal products, (ICH) S5A; September, 1994. Rockville (MD) Federal Register, September 22, 1994, Vol. 59, No. 183.
- Japanese Ministry of Health, Labour and Welfare (1997). Good Laboratory Practice Standard for Safety Studies on Drugs, MHW Ordinance Number 21, March 26, 1997.
- Organisation for Economic Co-operation and Development (1998). The Revised OECD Principles of Good Laboratory Practices [ENV/MC/CHEM(98)17]

#### Diagnosis:

One rabbit from this embryo-fetal development study.

#1603 died suddenly. The animal had exhibited mild body weight loss with low feed consumption and reduced fecal output for one day prior to death. Supplemental feed items and a secondary water source were provided. Necropsy findings in the respiratory system may have been consistent with more than momentary distress prior to death so this rabbit was conservatively categorized as E.

Study: #21

Animals: 1 Rabbit

Type of Study: Single Dose & Recovery Toxicity Study

#### Guidelines/Regulations:

- U.S. Food and Drug Administration 21 CFR Part 312 Investigational New Drug application section; 312.23 subpart B 5 (ii)
- US Dept of Health and Human Services, FDA, Federal Register, Vol. 62, November 25,1997. Maintenance of the ICH Guideline M3(R1)on Non-Clinical Safety Studies for Conduct of human Clinical Trials for Pharmaceuticals
- U.S. Food and Drug Administration. Good Laboratory Practice Regulations; Final Rule. 21 CFR Part 58; last revised April 1, 2002; U.S. Federal Government Archives.
- ICH Harmonized Tripartate Guideline S6 (R1). Preclinical Safety Evaluation of Biotechnology-Derived Pharmaceuticals.

#### Diagnosis:

One rabbit from this general toxicity study.

#5769 experienced body weight loss (18% over approximately sixteen days) and a reduction in feed consumption during that time period. Supplemental feed items and a secondary water source were provided. It is possible that inappetance and weight loss may have been consistent with more than momentary distress and therefore this rabbit was categorized as E.

Page 13 of 14

DEC 0 2 2813

#### Column E Explanation

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1.	Registration Number: 14-R-0189
2.	Number 38of animals used in this study.
3.	Species (common name) <u>hamsters</u> of animals used in the study.
4.	Explain the procedure producing pain and/or distress.
	Clostridium difficile - infected animals
5.	Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below)
	Pain and/or distress to hamsters cannot be relieved without compromising the studies. Theperiod of pain and/or distress for animals as controls (9) or treated but died (9) is short, ca. 2-4 hrs. That is, animals appear healthy until just before
	death from C. difficile colitis. If animals are detected in a moribund state, they are immediately euthanized. Using analysics such as opiates or NSAIDS would interfere with the study by altering gastrointestinal tract motility or inflammation, respectively, and the response of controls to infection or the
_	lack of treatment response to experimental antibiotics.  What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations
6.	(CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):
	AgencyCFR

#### **Column E Explanation**

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

2.	Number <u>69</u>	of animals used in this	study.
3.	Species (common n	ame) <b>Hamsters</b>	of animals used in this study.

4. Explain the procedure producing pain and/or distress.

1. Registration Number: 14-R-0206

Hamsters are utilized for a *Clostridium difficile* infection model that results in the animals having diarrhea which can lead to dehydration and significant weight loss if left untreated.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below).

The animals utilized under this study model are used to assess the therapeutic potential of new antibiotics for the treatment of *Clostridium difficile* associated diarrhea. Any analgesics or pain relieving drugs may interfere with the normal progression of the disease and how the therapy interacts with the host and infecting organism. To reducing the amount of pain and distress to the animals, increased health monitoring is employed which assess the animals activity level, weight loss within a given time frame, and overall well being. Animals that fall outside of the IACUC established policies and SOPs will be removed from the study and immediately euthanized.

6.	What, if any,	federal	regulations	require	this	procedure?	Cite	the	agency,	the	code	of	Federal
	Regulations (C	FR) title	number and	the spec	cific s	ection numb	er (e.	g., A	PHIS, 9	CFR :	113.10	)2).	
	Agency:			(	CFR:								

#### Summary of Exceptions to the Regulations and Standards

Registration Number: 14-R-0014

- 1. Impacts 34 NHP: Exception to every 14 day cage change frequency for baboons in intensive care. These baboons occasionally need to remain undisturbed for up to 21 consecutive calendar days, and so their cages are not exchanged for clean ones during that time. This lag in cage changing is because the chemical sedation required to transfer baboons to a clean cage may be too stressful while they recover from transplant surgery and are highly immunosuppressed.
- 2. Impacts 25 NHP: An exception for nonhuman primates enrolled in studies that require restricted fluid intake for performance of complex behavioral tasks. Animals that are not fluid controlled usually will not work or will only work for periods of time so brief as to not be useful for training and recording. For some studies, this may require access to drinking water only once per day. These animals are closely monitored by veterinary staff during the study to ensure animal welfare is maintained. Duration of restricted fluid intake is limited to the minimal time needed to accomplish the task, accompanied by mandatory 'vacation' periods that provide free access to oral fluids for at least two consecutive weeks at least every 6 months.
- 3. Impacts 20 NHP: An exception to every 14 day cage change frequency for nonhuman primates enrolled in studies that require dosing with a radioisotope for enhanced resolution imaging procedures. Some of the isotopes used require a 42 day period to decay to safe disposal levels. The cages are spot cleaned in place instead of a complete cage change until the isotopes has decayed to safe levels. The duration has not exceeded 42 days.
- 4. Impacts 8 NHP: An exception to the minimum floor space requirement for paired nonhuman primates to be the sum of the minimum for each individual nonhuman primate in the table in paragraph (b)2(i) of section 3.80. When a pair is housed in a vertically doubled enclosure (one-over-one caging) the minimum floor space provided meets the minimum required for the larger of the two animals and a perch is also available above the cage floor. Animals are monitored by veterinary staff to ensure animals have the opportunity to express species typical behavior.

#### IACUC-approved exception to 9CFR3.81 (14-R-0017)

Justification for Single Housing of Non-human Primates (Rhesus Macaque, n=28): Laboratory for Cognitive Neurobiology

NEURAL SUBSTRATES OF COGNITIVE DECLINE IN AGING MONKEYS and NON-HUMAN PRIMATE MODEL FOR ASSESSING MOTOR RECOVERY AFTER STROKE: Importance of Protecting Thumb and Fingers of Both Hands: The stroke study is currently designed to reduce the number of subjects required by comparing the performance of the unaffected thumb and index finger to the performance of the ischemic stroke impaired thumb and index finger. Similarly, the aging study tests visumotor functions in individual animals across their lifespan. If nonhuman primates were housed in living conditions that increased the likelihood of an animal being injured, then injury to thumb and index fingers is also more possible. Should this occur, the evaluation of the study subject would terminate prematurely possible resulting in a non-analyzable end point for that individual animal. Nonhuman primates in these studies are required to perform a fine motor test that consists of retrieving a small food reward from wells of various depths and diameters using their thumb and index finger of each hand. In fact one of the requirements that we have in the screening process for the purchase of the monkeys for the stroke study is that they need to have intact thumbs and index fingers (on both hands since one hand serves as the control for the other hand). Individual housing protects against the loss or damage of the index finger or thumb due to some injuries that could occur in paired housing. Impairment of even one index finger or thumb of either hand or even a minor injury that interrupted daily testing would disrupt the temporal assessment of rate of recovery and require the animal to be terminated from the study and replaced.

The monkeys continued to be housed in the manner in which they have been to date (semi-social housing) with visual, auditory, and olfactory contact with compatible monkeys provided.

IN VIVO STUDIES OF PREFRONTAL - HIPPOCAMPAL INTERACTIONS: For the two monkeys currently active on this protocol it is vital that they continue to be housed in the manner in which they have been to date (semi-social housing) so as not to set the study back by months as they acclimate to a different living situation. It is anticipated that any future monkeys entering this protocol would be housed according to the standard housing practices in place (i.e., social housing) at the time they are added to the protocol.

#### CAC Approved Exemptions to Animal Welfare Guidelines and Regulations

Macaques in the upper weight range of Group 5 (changed post submission) (as defined by the USDA regulations) will be housed in cages that provide supplemental volume if the floor area does not meet USDA engineering standards. Primates housed singly will be housed in cages that provide supplemental cage volume. Approximately twice the vertical space or twice the horizontal space, as required by the Animal Welfare Act regulations, will be provided. These cages will be considered "innovative housing" and will be exempt from floor area requirements in the Animal Welfare Act. During the period 10/1/12 through 9/30/13, six macaques were housed in innovative housing.

During the period 10/01/12 through 9/30/13, nine squirrel monkeys were group housed and none were singly housed. Sixty macaques were pair housed and 45 were singly housed. Reasons for singly housing primates were categorized as follows:

- 1. Category A = aggressive to or agitated by conspecifics
- 2. Category H = too human oriented
- 3. Category J = no juvenile or other candidate for pairing
- 4. Category F = frail

The categorization for the 45 singly housed macaques for the period 10/01/12 through 9/30/13 was: 17 in category A, 1 in category H, 11 in category J and none in category F, 7 in a combination of category H & J, 9 in H & A and none in H & F.

Water-regulated macaques are exempted from one hour of *ad libitum* water twice/day. The exemption from *ad libitum* water for an hour twice daily is implicit in CAC approval of protocols using water regulation to motivate behavioral responses in primates. For the USDA reporting period 10/01/12 through 9/30/13, 62 macaques were impacted by water regulation.

#### **Exception to Standards**

Registration Number: 14-R-0019

Housing of nonhuman primates in social settings (pairs or groups) is the requirement of the USDA regulations (9 CFR Ch. 1, Part 3, Subpart D) and single housing is the exception.

We present the following nonhuman primates housed in exception to this standard:

Number	Justification
598	Animals may develop immunodeficiency following challenge with pathogenic SIV. Social
(Macaca	housing under these conditions risks transmission of vaccine candidates or infectious
mulatta )	agents. When necessary, individual housing allows for more accurate health monitoring,
5 (Macaca	and reduces food competition. When possible, animals are socially housed during the
fascicularis)	vaccine stage, but are individually housed after challenge.
39 (Macaca	Social housing of animals on infectious agent studies presents a risk of transmission of
mulatta)	infection between animals.
9 (Callithrix	
jacchus)	
12 (Saimiri	Social housing of animals on behavioral studies may confound the ability to make
sciureus)	behavioral assessments of individual animals. Social housing presents risk of damage to
24 (Macaca	sensitive behavioral monitoring apparatus worn by NHPs and/or compromise to surgical
fascicularis)	incisions.
93 (Macaca	
mulatta)	
4 (Macaca	Social housing presents risk of damage to telemetry, or other devices.
fascicularis)	
1 (Macaca	
mulatta)	
15 (Macaca	Cohort has proven incompatible with conspecifics.
mulatta)	
17	Social housing may confound necessary dietary control.
(Callithrix	
jacchus)	
6 (Saimiri	
sciureus)	
Our animals a	are housed in cages that are arranged in facing rows, so that all animals can see each
other. Each o	age is equipped with environmental enrichment manipulada under the supervision of the
Attending Ve	
823	TOTAL

#### **Exception to Standards**

Registration Number: 14-R-0019

Food must be of sufficient quantity and have sufficient nutritive value to maintain a healthful condition and weight range of the animal and to meet its normal daily nutritional requirements; Section 3.82: Feeding.

We present the following nonhuman primates fed in exception to this standard:

Number	Justification
75 (Macaca mulatta) 20 (Saimiri sciureus)	Operant behavior (lever pressing) reinforced by food delivery in experiments involving drug/food choice procedures is maintained by scheduled delivery of food or treats. Body weights of monkeys are maintained at 80-95 % of <i>ad libitum</i> values by adjusting access to supplemental food in the home cages. Animals were fed daily, given fruit at least 2x/week. During initial training, body weights are brought to approximately 90% of <i>ad libitum</i> values. Animals are weighed before each training session. Once subjects respond reliably under the schedule of food delivery, home cage food availability is increased to the maximum allotment that does not degrade performance. Over the course of experiments, animals are typically maintained at body weights of approximately 80-95% <i>ad libitum</i> values. Animals receive a nutritionally balanced diet of chow supplemented with fruit and other appropriate foods.
95*	TOTAL

The diet must be appropriate for the species and meet its normal daily nutritional requirements; Section 3.83 Watering: Potable water must be provided in sufficient quantity to every non-human primates housed at the facility. If potable water is not continually available to the non-human primates, it must be offered to them as often as necessary to ensure their health and well-being, but no less than twice daily for at least one hour each time.

We present the following nonhuman primates offered water in exception to this standard:

Number	Justification	
7 (Macaca Nemestrina) 23 (Macaca mulatta)	Water scheduling occurs through self-administration training of NHPs on behavioral studies is facilitated by removing access to water one hour before the start of the session and throughout the session. Access to water is restored one hour after completion of the session. Fluid rewards are offered to NHPs on behavioral studies at less than the above minimum for water.	
Macaques are receive a bod	ts are monitored regularly to ensure that animals remain in the desired window. weighed and undergo a physical examination every 2 weeks. In addition, all animals y condition score at the time of preventive healthcare by the veterinary staff y every 3-4 months.	
30*	TOTAL	

#### **Exception to Standards**

Registration Number: 14-R-0019

Pharmaceutical-Grade Compounds in Research (Animal Care Resource Guide, Policy #3, Veterinary Care). Investigators are expected to use pharmaceutical-grade medications whenever they are available, even in acute procedures. Non-pharmaceutical- grade chemical compounds should only be used in regulated animals after specific review and approval by the IACUC for reasons such as scientific necessity or non-availability of an acceptable veterinary or human pharmaceutical-grade product.

We present the following non-human primates administered compounds in exception to this standard:

Number	Justification
88 (Macaca mulatta), 19 Saimiri sciureus)	The use of non-pharmaceutical-grade compounds is approved if supported by satisfactory scientific justification such as the unavailability of pharmaceutical-grade drugs or equivalent alternative pharmaceutical-grade drugs; the unavailability of the required formulation or concentration; the presence of additives (e.g. preservatives) that may compromise the research, etc.
107*	TOTAL

<sup>\*</sup>NOTE: In some cases, there are animals with one or more exceptions (e.g. an animal may be individually housed receive non-pharmaceutical-grade materials, and be on food restriction and/or water restriction). For example some of the animals listed in the food restriction table may also be presented in the water restriction table (i.e. counted twice). Additionally, animals may be subject to a given exemption for some or all of the reporting period.

#### SUMMARY OF EXCEPTIONS TO ANIMAL WELFARE ACT (AWA) STANDARDS

The Animal Care Committee (ACC) of the Massachusetts Eye and Ear Infirmary has approved the following exceptions to AWA standards:

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Conscious rhesus monkeys (n=2), squirrel monkeys (n=3) and guinea pigs (n=7) are restrained for vestibular testing and perception studies. During testing, the animal's head is held in a fixed, forward facing position. Monkeys are restrained in size-appropriate primate chairs while guinea pigs are restrained in a custom Velcro holding device. The testing procedure lasts for 1-2 hours.

Individual housing for animals on vestibular and perception testing studies has been requested by the principal investigators, sanctioned by the Attending Veterinarian and approved by the ACC. It should be noted, however, that monkeys and guinea pigs are pair housed until they are on test.

Rhesus monkeys (n=2) are water restricted four days a week (Tuesday to Friday) during vestibular/perception testing, where water is given as a reward. Following each testing session, animals are given their days' water requirement (a predetermined amount) by hand-held syringe. The animals are provided with free access to water *ad libitum* on the remaining three days (Friday evening until Monday afternoon). Animals on water restriction have their body weights taken and recorded three days a week.

Conscious rabbits (n=30) are restrained for acoustic neuronal recordings. During testing, the animals are restrained in a Velcro jacket while the head is held in a fixed, forward facing position. The animals have been previously trained to accept the restraint procedure.

#### Summary of Exceptions to the Regulations and Standards

Specified and Explained by the Principal Investigator and Approved by the IACUC

1. Species: Syrian hamster

Number: 201

Exception to cleaning schedule:

In a study involving Syrian hamsters, the researcher submitted a memorandum of explanation to the IACUC regarding a change in the cleaning schedule for cages in which his hamsters are housed for particular studies approved previously by the IAUC. This relates to 9 CFR, Ch. 1, Part 3, Subpart B, 3.31.a. This matter was discussed and approved by the IACUC on April 8, 2009. The measure is supported by a policy statement of the Society for the Research on biological Rhythms which appeared in the Journal of biological Rhythms, Vol. 8, pp. 97-106 (1993) which outlines and explains modifications of normal observance, cleanliness/sanitation, and food and water provision procedures for rodents in circadian rhythm studies. The change involved delaying cage cleaning for up to three weeks because the stimulus of the cleaning process (new cage, fresh bedding), disrupts free running activity levels developed during the study. These activity levels must be measured over several weeks in the same (unchanged) cage environment. It was agreed that the researcher will monitor closely the cages during these particular studies to ensure the environments of the hamsters and mice will be as satisfactory as possible until the data collections are completed. Such observations must be conducted under very dim red illumination. It was agreed by the IACUC and the director of Animal Care that inactive animals will be visually checked to make sure they are not ill or in distress. Healthy mice and hamsters run many revolutions on a wheel each night, and computer records indicating robust activity are considered adequate verification of each animal's well being.

2. Species: Rhesus macaque

Number: 9

**Exception to Social Housing:** 

The importance of social housing has long been recognized at the UMASS Primate Facility and non-human primates are housed in pairs or in larger social groups whenever possible. There are however some exceptions to social housing NHPs for animal welfare reasons approved by the IACUC. Permanent or temporary single housing arrangements are used when there is no other alternative to protect an animal from aggression or for health reasons. Where feasible (based on the animal's health, behavior and level of aggression), cages are positioned so as to allow limited contact between adjacent cages and all singly housed non-human primates can see and hear other familiar animals. For old animals for which it has been impossible to identify a compatible cage partner the arrangement is permanent. All single housed NHPs receive extra-enrichment in the form of toys, foraging opportunities and human contact.



## TUFTS UNIVERSITY School of Veterinary Medicine

Division of Teaching and Research Resources

Tufts University
Cummings School of Veterinary Medicine
North Grafton, Massachusetts
2012-2013 Annual Report of Research Facility
Registration Number: 14-R-0065
Customer Number: 628
November 25, 2013

Summary of Exceptions to the regulations and standards:

- 1) Exception to standard housing. Gnotobiotic piglets are housed in isolator units (~1.25-1.66 sq feet) within a 90°F room. The elevated temperature is needed because newborn piglets are unable to regulate their body temperature. The isolator units are required to protect the gnotobiotic piglets from external microbes and to protect personnel from the pathogens being utilized within the isolators. Individual housing within an isolator bubble or unit facilitates monitoring of milk intake thereby ensuring adequate nutrition and collection of feces. Piglets do not receive colostrums from the sow, so that they are highly susceptible to infection. Typically, piglets will remain within an isolator bubble or single isolator bay for no more than 2 weeks. If piglets are maintained for more than 2 weeks, they are transferred to a clean double isolator bay (twice the size of a single isolator bay). Daily cleaning of isolator units and caging is limited by the fact that these are sealed units designed to protect piglets from external pathogens and to protect personnel from the pathogens being utilized within the isolators. In an effort to minimize waste build-up, isolator units and caging are constructed such that waste falls through the grated flooring; trays underneath caging are emptied twice daily; and food bowls are emptied and wiped out if milk remains at feeding time. Species: Swine Number: 96
- 2) Exception to standard housing, physical restraint and food and fluid regulation.

  Animals are held in standard microisolator cages with bedding, food, and water but the entire cage is held within a pan or larger cage containing one inch of water

so that ticks cannot escape. Husbandry is the same as for any cage, except that waste is always decontaminated by soaking with bleach or sporocidin to ensure that no ticks remain viable within the bedding when it is discarded. This cage within a moat has proven to be the most reliable way to ensure that ticks cannot escape. For tick infestation, hamsters may be held within custom-made stainless steel mesh tubes that prevent them from turning around and grooming. Such tubes are wrapped within paper toweling and taped so that ticks that do not attach do not escape; in addition, the wrapping helps to conserve body heat. Infestation is allowed to occur for 2 hours. During the 2 hours of tick infestation the animal does not have access to food and water. Species: Hamster Number: 19

- 3) Exception to unanesthetized animals restrained over 30 minutes. Food and water restriction. During a field study, animals are trapped and may be within traps overnight, but not longer than 12 hours due to setting traps in the evening and checking them 2 hours after dusk and then in the morning 2 hours after dawn. Nutritive bait is used within live traps, water-containing bait is not provided because remnants would foul the live traps and wet animals would suffer hypothermia. Live captures are released at the point of capture as soon as possible after samples and data are taken.
  - Species: Peromyscus Number: 36 Species: Rabbit Number: 2
- 4) Exception to physical restraint: During bovine teaching laboratory for the safety of the students and the animals, the animals are restrained standing in standard head gates and metal pipe stocks with halters and loosely tied lead ropes. They are offered water and cooled by sponge bath, if needed. The total duration of restraint is no more than 4 hours. Species: Bovine Number: 37
- 5) Exception to physical restraint, use of non-pharmaceutical grade/non-USP substances: Unanesthetized animals will be placed in holding devices for aerosol challenge. The animals will be gradually acclimated to placement in the holding tubes before being placed nose in to the inhalation device. Depending on the dosing requirements, the rabbits may be held and monitored within the tubes for periods of up to 60 minutes. The animals will not have access to water or food during the sixty minute exposure intervals. Human serum albumin (control) or the vehicle (diluents) of the test article, will be injected into one control group and these will not be pharmaceutical grade due to the unavailability of this grade material We will use USP water for buffers or USP-grade human serum albumin, in available. Solutions will be filtered through a 0.22 um filter before use. Species: Rabbit Number: 7
- 6) Exception to food access: Grain withheld up to 36 hours and hay withheld up to 6 hours prior to treadmill test. A horse cannot run efficiently on a full stomach because it restricts lung expansion and is uncomfortable.

  Species: Equine Number: 1
- 7) Exception to standard housing: Sheep occasionally stand up on their hind legs and rest their front legs against the stall door. This places excessive weight on the hind legs and increases the likelihood of implant failure. The sheep housing is modified by placing a false roof constructed of small mesh fencing over the full extent of the stall at a height of 4 feet. This will allow the sheep to see above its stall but will prevent it from standing on its back legs. Species: Sheep Number: 1

- 8) Exception to food and water restriction: For the pharmacokinetic study, the animals are fasted overnight fasting prior to drug administration and during the study for a duration of <24 hours since food may affect the results of the study. Species: Dog Number: 11
- 9) Exception to use of pharmaceutical grade/USP substances: All of the antigens used will be non-pharmaceutical grade/ non-USP substances. None of the antigens are available as pharmaceutical grade or USP-grade preparations. Nonetheless, all will be produced aseptically and sterile-filtered prior to use in animals. Species: Alpaca Number: 5
- 10) Multiple survival surgery: The grafting of a second application of bioengineered construct to the same recipient after leaving a minimum of 12 to 16 day period between the last collection time-point from the first application and the second surgery initiation day. This will be done to assess the host reaction towards the tested products and the wound healing process. Species: Miniswine Number: 1



Date: October 1, 2013

To: Elizabeth Goldentyer, D.V.M.

Regional Director Eastern Regional Office USDA, APHIS, AC

From: (b) (6), (b) (7)(C)

Re: USDA 2012 Annual Report of Research Facilities

Please find enclosed the Annual Report of Research Facilities for rEVO Biologics (# 14-R-0074). This report covers the time frame from October 1, 2012 through September 30, 2013 as required by the Animal Welfare Act regulations.

rEVO has one IACUC approved exemption relative to major multiple operative procedures. Per the USDA exemption approval letter dated November 26, 2010, please find below a detail of the number of animals for which multiple survival procedures have been performed during the dates indicated:

1. October 1, 2012 – September 30, 2013: a total of 9 multiple operative procedures were performed representing 9 actual animals (goats) utilized.

Additionally, all of the requirements as put forth in the USDA exemption approval letter are being followed relative to animal identification, limitation on surgical number, maintenance of animal records, and periodic IACUC review.

Please feel free to contact me if you have any questions or if there is any additional information you require.



Members of McLean Hospital's Institutional Animal Care and Use Committee have approved four exemptions to the AWA standards during the past year:

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- 1. An exemption was granted to allow group 4 primates to be housed in operant cages that are slightly smaller than the standards allow for total volume. The IACUC agreed that although these cages have slightly less floor space, they provide more vertical space providing a total volume space that would be adequate for group 4 monkeys up to 13.8 kg based on a regression chart (cage space by weight). Currently, there are no group 4 monkeys in the colony to which this exemption would apply.
- 2. An exemption was granted allowing cage washing of 34 operant cages on a monthly basis, rather than bi-weekly basis. These cages are designed to accommodate monkeys that have been fitted with chronic, indwelling intravenous catheters. The IACUC agreed that more frequent cage changing while animals are engaged in specific behavioral evaluations could negatively influence the physiology of the animal, and could also lead to a higher rate of infections due to the increased frequency of having to break catheter lines.
- 3. An exemption was granted allowing 31 rhesus monkeys with intravenous catheters for drug self-administration studies and 29 animals involved in drug discrimination studies to be singly housed rather than social housed as is required for non-human primates. Scientific and welfare justifications for the exemption were based on published reports, in-house data, and correspondence with other investigators familiar with social housing of rhesus monkeys indicating that collection of scientific data and animal welfare would be negatively affected by social housing.
- 4. An exemption was granted allowing 18 squirrel monkeys with catheters for chronic drug administration discrimination studies to be singly housed rather than social housed as is required for non-human primates. Additionally, a veterinary exemption to social housing was approved for 6 squirrel monkeys that were in poor health or had compatibility issues.

Toxikon Corporation
14-R-101
Annual Report for Research Facility
2012-2013

<sup>1 of 1</sup> FEB 2 4 2014

#### Exemptions:

NHPs were single housed for the duration of 5 Pharmacokinetic studies.

#### Explanation:

Standard housing requirement for NHPs is to be housed in pairs. If animals are placed on toxicity or pharmacokinetic studies, the contact between animals when paired or during an attempted paring can result in risk to animals and potentially compromise the scientific integrity of the study data. Therefore, animals placed on study and receiving the drug must be physically separated from animals that are not on study or in different dose groups.

All toxicity studies are designed to have a dose level for which there will be observable adverse effects of the test substance. These adverse effects will vary based on the drug but can include clinical signs such as weight loss, hypo activity or hyperactivity, or aggressiveness. Clinical pathology can be affected as well. Any drug going through safety testing has the potential to compromise the liver or kidney function. Adverse effects that may not been noted clinically can been seen in histopathology such as muscle or lymphophoietic tissue degeneration.

If one member of a paired set or an animal in the same room is not on study, in a lower dose or control group, exposure to the test substance and potential toxic effects could harm the animal. Exposure may occur through bodily fluids, feces or food contamination. NHPs are known to be aggressive with other NHPs and on-going attempts of pairing could increase this aggressiveness and risk of blood exposure through injury. Risk of injury could increase in established pairs if one of the animals is sick or becomes overly aggressive due to the toxicity of the test substance.

There is also scientific justification for separating the study animal. One is to prevent contamination across dose groups. Exposure of the control group to the drug through pairing would compromise the study data. A dose response or a No Observable Adverse Effect Level could not be established be if there is cross contamination between the lower and higher dose groups. Pair housing NHPs during a study makes it impossible to ensure the dose and control groups will not be cross contaminated. Thus the appropriate conclusions on the safety or an accurate pharmacokinetic profile of the test substance could not be determined. In addition, the test substance may be delivered in the food or water or food and water consumption measurement may be performed during the toxicity studies. None of these can be occur if animals are pair housed.

#### Species:

Saimiri spp. and Macaca fascicularis

#### Number Affected:

17 Cynomologus Macaques and 8 Squirrel Monkeys

## IACUC-APPROVED EXCEPTIONS TO REGULATIONS AND STANDARDS – 2013 REPORT

The IACUC must approve exemptions from non-human primate environmental enhancement plans and dog exercise activities. The animals were observed daily by the animal care and technical staff and the veterinary technician (or veterinarian). The following exemptions to standards/regulations were approved by the IACUC during this reporting period.

Species:

Nonhuman Primate

Number:

357

All animals were on toxicology studies and were exempted from social housing for up to 133 days due to study design. Environmental enrichment devices and external stimuli such as radios, televisions, and conspecific visualization, olfactory and auditory stimulation were provided.

Species:

Nonhuman Primate

Number:

Animals were on reproductive and developmental study and were exempted from social housing from GD 144 until birth. After birth, female and infant were social housed together.

Species:

Nonhuman Primate

Number:

Animals were on surgical studies and were exempted from social housing for up to 14 days.

Species:

Nonhuman Primate

Number:

448

Animals were on pharmacology or toxicology studies. Social housing was exempted from 1 day to 63 days during telemetry monitoring.